DILEMMAS OF COOPERATIVE LEARNING: CHINESE STUDENTS IN A CANADIAN SCHOOL

by

XIAOPING LIANG

B.A., Nanjing University, China 1977
M.A., Exeter University, UK 1981

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Department of **Language Education**

The University of British Columbia
Vancouver, Canada

Date **December 18, 1998**
ABSTRACT

Research in cooperative learning in education generally and second language education in particular has documented the apparently successful and simultaneous achievement of a number of educational goals. For second language learners, these goals include developing the second language (L2), maintaining the first language (L1), and acquiring content knowledge. However, little research has examined the opinions of the learners themselves with regard to cooperative learning together with the process of cooperative interaction. This study explores the opinions and interactions of Chinese immigrant students engaging in cooperative learning in English as a second language (ESL) classes.

Drawing on qualitative research and discourse analysis traditions, the study used multiple methods of data collection in a Canadian secondary school ESL program: (1) individual interviews were carried out with 49 Chinese students; (2) 120 hours of observations in natural classroom settings were conducted; and (3) 30 hours of audio taped recordings of Chinese students' interactions during cooperative learning activities were also analyzed.

The findings of the study present a complex picture of cooperative learning in the ESL classroom. The Chinese students seemed to be sitting on the horns of cooperative learning dilemmas between cooperation and individualism, between achieving results and sharing understandings of the task, and between using L1 to help with L2/content learning and developing L2 for academic purposes. Particularly with cooperative learning goals of developing L2, maintaining L1, and acquiring content knowledge, Chinese students had difficult choices to make between developing L2 and maintaining L1, between using L1 for academic language and developing academic language in L2, and between learning content in L1 and learning content in L2.
At a detailed level, tensions and dilemmas that Chinese students confronted appear to be intrinsic to the simultaneous pursuit of the three cooperative learning goals claimed for L2 learners. Cummins' (1991b, 1992) bilingual proficiency theory, which offers a possible theoretical model of how these goals are related, needs to address the various conflicts and dilemmas involved in these three cooperative learning goals. While recognizing other contributing factors, this work suggests that cooperative learning dilemmas may arise from conflicts of socially shared values and beliefs, and that discrepancies between Chinese students' home educational culture and their present Canadian secondary school culture add a layer of complexity to the dilemmatic situation of cooperative learning in an ESL context.
# TABLE OF CONTENTS

Abstract .......................................................................................................................... ii

List of Figures ................................................................................................................ vii

Dedication ....................................................................................................................... viii

Acknowledgments ......................................................................................................... ix

Chapter 1: Background of the Study ........................................................................... 1
  1.1 The Research Problem ......................................................................................... 1
  1.2 Purpose of the Study ............................................................................................ 2
  1.3 Significance of the Study ..................................................................................... 2
  1.4 Theoretical Background ..................................................................................... 3
    1.4.1 Theories of Language ................................................................................... 4
    1.4.2 Theories of Language Learning ................................................................. 5
    1.4.3 Theories of Social Science Research ......................................................... 7
    1.4.4 Theories of Cooperative Learning ............................................................. 10
    1.4.5 Situating the Present Study ....................................................................... 12

Chapter 2: Pretext of Cooperative Learning .............................................................. 14
  2.1 Cooperative Learning in the Mainstream Classroom ......................................... 15
    2.1.1 Cooperative Learning and Student Achievement .................................... 16
    2.1.2 Cooperative Learning and Interracial Relations ..................................... 19
  2.2 Cooperative Learning in the Second Language Classroom ............................ 23
    2.2.1 Cooperative Learning and Second Language Acquisition .................... 24
    2.2.2 Cooperative Learning and First Language Maintenance ....................... 27
    2.2.3 Cooperative Learning and the Acquisition of Content Knowledge ......... 29
  2.3 Bilingual Proficiency Theory: A Possible Explanation ..................................... 32
    2.3.1 Two Levels of Language Proficiency: Conversational and Academic .. 32
    2.3.2 Bilingual Proficiency Theory: Transfer Across Languages .................. 34
    2.3.3 Continued Development of L1 ................................................................. 35
    2.3.4 Issues of Language as Meaning Versus Language as Conduit .......... 37
  2.4 Rationale for the Present Study ........................................................................... 39
    2.4.1 Sociocultural Aspects of Cooperative Learning .................................... 40
    2.4.2 Dilemmatic Aspects of Cooperative Learning ......................................... 45
    2.4.3 Research Questions .................................................................................... 46

Chapter 3: Methods of Inquiry .................................................................................... 49
  3.1 Research Design .................................................................................................... 49
    3.1.1 Cooperative Learning as a Language Socialization Activity ................. 50
    3.1.2 Activity as Social Action: Theoretical and Practical Aspects .............. 52
    3.1.3 Activity as Discourse: Reflection Discourse and Action Discourse ...... 54
    3.1.4 Connecting Qualitative Research and Discourse Analysis .................. 56
3.2 Research Methods ................................................................. 58
3.2.1 Sampling Procedures ..................................................... 59
3.2.2 Data Collection Procedures ........................................... 62
3.3 Data Analysis ..................................................................... 67
3.3.1 Inductive Analysis ......................................................... 67
3.3.2 Ethnographic Microanalysis ........................................... 69
3.3.3 Code-Switching Analysis ................................................ 70
3.3.4 Knowledge Structure Analysis ........................................ 73
3.4 Data Presentation .............................................................. 74
3.5 Research Trustworthiness .................................................... 74
3.6 Working Forwards and Backwards ........................................ 76

Chapter 4: Cooperative Learning: A Matter of Dilemmas for L2 Learners .............. 78
4.1 Conflicting Views of Cooperative Learning ...................................... 78
4.1.1 Likes Versus Dislikes About Working in Groups ...................... 79
4.1.2 Explanations for Preferring / Not Preferring to Work Individually ..... 85
4.1.3 Clear Cut Opinions? .......................................................... 89
4.2 Cooperation in Cooperative Learning? ........................................ 91
4.2.1 Discourse of Cooperation ................................................ 91
4.2.2 Discourse of Non-Cooperation .......................................... 95
4.2.3 Discourse of Mis-Cooperation .......................................... 98
4.3 Cooperative Learning as a Matter of Dilemmas .......................... 102
4.3.1 Cooperative Learning as Part of the School Culture ................. 105
4.3.2 The School Culture of Johnson Secondary School .................. 107
4.3.3 The Educational Culture Chinese Immigrant Students Came From .... 113
4.3.4 Chinese Students Caught in the Mismatch of Two Educational Cultures .......... 117
4.3.5 Dilemmas Arising From Conflicts of Socially and Culturally Shared Values ........................................ 120

Chapter 5: Cooperative Learning Goals: A Complex Knot of Dilemmas .............. 126
5.1 Mixed Feelings About L1 and L2 Use ...................................... 126
5.1.1 Circumstances for Speaking L1 in ESL Classes ..................... 127
5.1.2 Reasons for L1 Use in ESL Classes .................................... 130
5.1.3 Comments on L2 Development in ESL Classes ..................... 137
5.2 Differences in Functions of L1 and L2 Discourse ......................... 138
5.2.1 Functions of L1 Discourse ................................................ 141
5.2.2 Functions of L2 Discourse ................................................ 149
5.3 Cooperative Learning Goals as a Complex Knot of Dilemmas .......... 155
5.3.1 Dilemmas of L1 Maintenance Versus L2 Development ............. 156
5.3.2 Dilemmas of Using L1 for Academic Language Versus Developing Academic Language in L2 ........................................ 160
5.3.3 Dilemmas of Content Learning in L1 Versus Content Learning in L2 .164

Chapter 6: In Search of the Last Words ............................................ 170
6.1 Summary of Research Findings .............................................. 170
6.1.1 Chinese Students on the Horns of Cooperative Learning Dilemmas ... 171
6.1.2 Tensions Intrinsic to Cooperative Learning Goals .................... 173
6.2 Implications for Further Research ................................................................. 175
  6.2.1 Moving From What Are the Benefits to What Are the Conflicts ........... 175
6.3 Implications for Teachers ................................................................. 176
  6.3.1 Cooperative Learning Not Always Well Appreciated ..................... 176
  6.3.2 Managing Dilemmas and Reducing Tensions ................................. 177
  6.3.3 Dilemmas as a Driving Force for Improvement .......................... 183
6.4 Reflections on the Study ............................................................. 184
  6.4.1 A Partial Picture of a Larger Scene ........................................... 184

References .............................................................................................................. 186

Appendix 1: Standardized Interview Questions ............................................. 202
Appendix 2: Chinese Students' Responses to Interview Questions (1) ............ 205
Appendix 3: Chinese Students' Responses to Interview Questions (2) .......... 210
### LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Two Levels of Language Proficiency</td>
<td>33</td>
</tr>
<tr>
<td>2</td>
<td>The Dual Iceberg Representation of Bilingual Proficiency</td>
<td>35</td>
</tr>
<tr>
<td>3</td>
<td>Common Sense Taxonomy of Diseases</td>
<td>38</td>
</tr>
<tr>
<td>4</td>
<td>Medical Taxonomy of Diseases</td>
<td>38</td>
</tr>
<tr>
<td>5</td>
<td>Research Design of This Study</td>
<td>49</td>
</tr>
<tr>
<td>6</td>
<td>Ochs’ Model of Language Socialization</td>
<td>50</td>
</tr>
<tr>
<td>7</td>
<td>Scope of Research and Units of Study</td>
<td>51</td>
</tr>
<tr>
<td>8</td>
<td>Two Levels of an Activity</td>
<td>53</td>
</tr>
<tr>
<td>9</td>
<td>Two Types of Discourse in an Activity</td>
<td>55</td>
</tr>
<tr>
<td>10</td>
<td>Multiple Data Collection Procedures Used in This Study</td>
<td>62</td>
</tr>
<tr>
<td>11</td>
<td>Stages of Observation</td>
<td>66</td>
</tr>
<tr>
<td>12</td>
<td>Data Analysis Methods Used in This Study</td>
<td>68</td>
</tr>
<tr>
<td>13</td>
<td>Halliday / Staab Language Functions</td>
<td>72</td>
</tr>
<tr>
<td>14</td>
<td>The Knowledge Framework of an Activity</td>
<td>73</td>
</tr>
<tr>
<td>15</td>
<td>L1 and L2 Use in Relation to Social Needs, Controlling, Informing, and</td>
<td>139</td>
</tr>
<tr>
<td></td>
<td>Reasoning Language Functions (L1 &amp; L2 Calculated Separately)</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>L1 and L2 Use in Relation to Social Needs, Controlling, Informing, and</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>Reasoning Language Functions (L1 &amp; L2 Added Together)</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>L1 and L2 Use in Relation to Interpersonal and Ideational Language Functions</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>(L1 &amp; L2 Added Together)</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>L1 and L2 Use in Relation to Interpersonal and Ideational Language Functions</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>(L1 &amp; L2 Calculated Separately)</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>L1 and L2 Use in Relation to Informing and Reasoning Language Functions</td>
<td>141</td>
</tr>
<tr>
<td></td>
<td>(L1 &amp; L2 Added Together)</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>L1 and L2 Use in Relation to Informing and Reasoning Language Functions</td>
<td>141</td>
</tr>
<tr>
<td></td>
<td>(L1 &amp; L2 Calculated Separately)</td>
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</tbody>
</table>
DEDICATION

To Yong Sun and Yan Sun

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I am deeply indebted to the scholars in my supervisory committee: to my advisor, Dr. Bernard Mohan, for his valuable supervision and guidance which shaped my thinking on this research, and for all the time, energy, and patience he has generously put into this work; to Dr. Margaret Early for her continued support, encouragement, warmth, and humor; and to Dr. Patricia Duff for her timely, thoughtful, and constructive feedback.

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CHAPTER 1:
BACKGROUND OF THE STUDY

Cooperative learning refers to the instructional use of small groups in which students work together to accomplish meaningful school tasks (e.g., Johnson, Johnson, & Holubec, 1994a, 1994b; Kagan, 1992; Sharan, 1990a; Slavin, 1995a). While scholars in the field of education have defined the term in various ways, this work adopts the following definition of cooperative learning offered by Slavin (1995a) since Slavin’s work was influential in the classrooms of this study (see Section 4.3.1):

Cooperative learning refers to a variety of teaching methods in which students work in small groups to help one another learn academic content. In cooperative classrooms, students are expected to help each other, to discuss and argue with each other, to assess each other’s current knowledge and fill in gaps in each other’s understanding. (p. 2)

1.1 The Research Problem

Research in cooperative learning in education generally and second language education in particular has documented the apparently successful and simultaneous accomplishment of a number of educational goals. For mainstream students, these goals include improved achievement, positive interracial relations, and greater psychological health (e.g., Johnson, Johnson, & Holubec, 1994a, 1994b; Kagan, 1992; Sharan, 1990a; Slavin, 1995a, 1995b; Smith, Boulton, & Cowie, 1993). For second language students, these goals include more opportunities for second language development, first language maintenance, and content learning (e.g., Long, Adams, McLean, & Castaños, 1976; McGroarty, 1989, 1992; Pica, 1987; Doughty & Pica, 1986; Sharan, Bejarano, Kussell, & Peleg, 1984). While the findings on
cooperative learning outcomes are impressive, little research has examined the opinions of the learners themselves or the process of interaction during cooperative learning activities.

1.2 Purpose of the Study

The present study is designed to explore the opinions and interactions of English as a second language (ESL) students engaging in cooperative learning in ESL classes. More specifically, it investigates how recently arrived Chinese immigrant students from Taiwan, Hong Kong, and the People’s Republic of China (hereafter referred to as the PRC) perceive their cooperative learning experiences in ESL classes, and how they interact with one another in cooperative learning activities. One aim of the study is to explore cooperative learning as a potentially dilemmatic situation, in which Chinese students may have multiple and conflicting conceptions and goals, may confront unsatisfactory choices, and may need to make difficult decisions. Another aim of the study is to uncover cooperative learning as part of a distinct classroom culture; recent Chinese immigrant students’ past educational experiences in their home country may clash with their present experiences in a Canadian school. The purpose is not to undermine the usefulness of cooperative learning but to explore the complexity of this educational innovation in an ESL context.

1.3 Significance of the Study

As an instructional strategy, cooperative learning has been strongly advocated by Canadian educators and frequently practiced in many Canadian schools. Since the population of immigrant students in the Canadian school system is growing larger, and many of these students come from different educational, cultural, and linguistic backgrounds, various questions begin to surface. Do these students perceive cooperative learning in the same way as
their teachers do, or do they have culturally divergent interpretations of cooperative learning? How do they actually perform cooperative learning? What is happening when they work in cooperative groups? How do they coordinate their priorities for the three goals claimed for them (i.e., L2 development, L1 maintenance, and content learning) in the process of cooperative learning? Answers to these questions are of vital importance to educational practice because how these students perceive and do cooperative learning directly influences the implementation and success of this approach to instruction in Canadian schools. Insights into what these students think about cooperative learning and how they participate in cooperative learning activities are also important to research knowledge because they will contribute to an understanding of this instructional approach as experienced by its participants in the real world of the classroom.

1.4 Theoretical Background

Having stated the research problem, purpose, and potential significance of the study, this introduction chapter proceeds to review various related theories and to situate the current study in relation to these theories. Situating research in relation to theory is an important task for researchers because “theory (implicitly or explicitly) informs the questions researchers ask; the assumptions we make; and the procedures, methods, and approaches we use to carry out research projects. In turn, the questions asked will inevitably influence what kind of data are collected, how they are collected, and what conclusions are drawn on the basis of data analyses” (Peirce, 1995a, p. 569).
1.4.1 Theories of Language

In a survey of different approaches to discourse analysis, Schiffrin (1994) maintains that there are two paradigms in linguistics: the formalist or structuralist paradigm and the functional paradigm, which have very different assumptions about the nature of language and the methods for studying language. By emphasizing the systematicity of language, the formalist paradigm (e.g., Chomsky, 1957, 1965) tends to ignore language use in contexts. It does not address human intentions, intuitions, and feelings in language nor the relationship between language and the culture which creates it and which it transmits to generation after generation.

1.4.1.1 Functional Views

The functionalist paradigm in linguistics is represented by a variety of different points of view, for example, Hymes (1974), Hopper (1988), Stubbs (1983), Van Dijk (1977), Grimes (1975), Chafe (1980), and Givon (1989). This work will take the functional view of Halliday (e.g., 1985, 1994), who regards language primarily as a resource that people use to make meaning. As Eggins (1994) describes it, Halliday’s functional view is concerned with “how people use language with each other in accomplishing everyday social life” (p. 2). This interest in language use, as Eggins sees it, leads Hallidayan functional linguists to advance four major theoretical claims about language: “that language use is functional; that its function is to make meaning; that these meanings are influenced by the social and cultural context in which they are exchanged; and that the process of using language is a semiotic process, a process of making meaning by choosing” (p. 2, emphasis in original).

To further elaborate on the above four claims, Eggins (1994) explains that language use is purposeful behavior. People do not just talk or just write. They use language to achieve a
The fundamental purpose that language serves is to enable people to make meanings, to make sense of the world and of each other. Meanings are created in context. When language is used to create meanings, it carries with it, and also as part of it, aspects of the context in which it is created and within which it is considered appropriate or inappropriate. The context of situation and the context of culture both have an impact on the way language is used. Language is a semiotic system, a conventionalized coding system, organized as sets of choices or oppositions. Through the oppositions encoded in the semiotic systems of the language people use, reality is constructed. The process of language use is therefore a process of making meaning by choosing, also rhetorical and stylistic choices from grammatical systems, lexical items, and phonological elements.

The present study finds that the Hallidayan functional view of language draws attention to important issues of the role of language as a medium of learning in cooperative activities, and the functions that this use of language displays.

1.4.2 Theories of Language Learning

The assumptions about language discussed above have a fundamental influence on assumptions about language learning. In the field of second language education, different approaches have evolved, among which are the second language acquisition approach and the second language socialization approach. These two approaches are distinctively different in terms of how they see language is learned. The second language socialization approach is consistent with the Hallidayan functional view of language.
1.4.2.1 Second Language Socialization

According to Ochs (1988), language socialization stands for “socialization through language and socialization to use language” (p. 14). To be more specific, language socialization “refers to the lifelong process by means of which individuals—typically novices—are inducted into specific domains of knowledge, beliefs, affect, roles, identities, and social representations, which they access and construct through language practices and social interaction” (Duff, 1995, p. 508).

In contrast to views which consider language as a set of rules and language acquisition as learning of those rules, the language socialization perspective recognizes the contexts of language learning and perceives language learning in relation to culture learning (e.g., Halliday, 1978, 1986; Mohan, 1986, 1989; Ochs, 1988; Schieffelin & Ochs, 1986). It is grounded on an account of discourse in social context and on the view that the learner’s participation in discourse is not only a means of acquiring language but also of acquiring sociocultural knowledge (Halliday, 1978, 1986). It attempts to understand how individuals become competent members of social groups and the role of language in that process (Ochs, 1988; Schieffelin & Ochs, 1986). It regards language as both the focus of learning and the medium of learning, and is concerned not only with the development of language (e.g., how quickly students learn English, particularly English grammar), but also the development of other things, for example, content knowledge, classroom culture, and social understanding (Mohan, 1986, 1989), thus providing a view of second language learning distinctly different from the language acquisition perspective.

The present study finds that a language socialization perspective raises important questions about the relation between language learning, content learning, and cultural context during cooperative learning activities in the ESL classroom.
1.4.3 Theories of Social Science Research

In their discussion on competing paradigms in qualitative research, Guba and Lincoln (1994) point out that "questions of method are secondary to questions of paradigm" (p. 105). They regard a paradigm "as a set of basic beliefs (or metaphysics) that . . . represents a worldview that defines, for its holder, the nature of the 'world', the individual's place in it, and the range of possible relationships to that world and its parts" (p. 107, emphasis in the original text). They maintain that this basic belief system or worldview guides the inquirer in his or her inquiry and, hence, no inquirer "ought to go about the business of inquiry without being clear about just what paradigm informs and guides his or her approach" (p. 116).

According to Harré (1993), the methodologies researchers employ and the way they use them is closely related to the metaphysical or ontological commitments they bring to their task. Before they decide which techniques of inquiry to choose and how to exercise them, they need to answer a question that is fundamental to all social sciences research: How do they see human beings and human social interaction? "Are human beings to be taken to be active agents using their social knowledge jointly to accomplish certain ends? Or are they information-processing automata, the behaviors of which are the effects of causal processes?" (p. 11). For Harré, these two questions mark the division of two opposing paradigms of ontology regarding human social behavior. This is not to suggest that this is the only way to characterize these differences in ontology. For a variety of positions that have been taken by a number of scholars, see, for example, Denzin (1989), Guba and Lincoln (1994), Polkinghorne (1988), Bogdan and Biklen (1992), Anderson (1994), and Eisner (1998).
1.4.3.1 Human Beings as Automata

Harre (1993) claims that the “old paradigm” holds that human coordinated behavior is “the effect of causal processes, triggered by the stimuli to which the subjects are exposed. The job of the experimenter is to look for correlations between elementary stimuli and elementary behaviors” (p. 14), using statistical analyses to identify central tendencies. Individuals are the focus of attention for causal processes in this type of experimental research. Harre considers this traditional experimental approach as having a number of drawbacks, one of which is the meaning problem. The stimuli created by the experimenter may not have the same meaning for all participants, and they may not have the same meaning to the participants as the experimenter intended. The experimenter assumes that there is no problem, but in Mixon’s research (1971, as cited in Harre, 1993), for example, participants gave a variety of interpretations to the laboratory situation; they gave a different meaning to the set of stimuli from that intended by the experimenter.

While the experimental approach may be suited to the investigation of automatic or habitual behavior, it is not appropriate for the exploration of processes involved in deliberate and intended human behavior. In human behavior, it is crucially important to understand not only the external conditions but how these conditions are understood and interpreted by the participants. Other approaches of empirical research are needed to examine the role of the cultural interpretation of coordinated behavior.

1.4.3.2 Human Beings as Agents

Harre (1993) claims that the “new paradigm” maintains that human coordinated behavior is the product of joint action of human agents acting intentionally according to local norms to achieve certain goals (Cranach, 1992; Cranach & Harre, 1982; Ginsburg, Brenner, &
Cranach, 1985; Harré, 1993; Harré, Clarke, & Carlo, 1985; Secord, 1990). The following quotation from Harré (1993) states clearly the ontological assumption of this new paradigm: “Social behavior is the structured product of the joint actions of intelligent and knowledgeable agents acting to further some end or other. It is not the effects of causes” (p. 107). The job of the researcher is then to observe and look for patterns of meaningful action by following the intentions and plans of the actors and by attending to the conventions and rules that are accepted as valid in the actors’ community and which are known to the members.

The new paradigm in social psychology sometimes refers to local norms, according to which individuals act, as “social representations,” or in other words, social images, ideas, or theories of the world shared within a group (e.g., Cranach, 1992; Doise, Clemence, & Lorenzi-Ciolidi, 1993; Thommen, Cranach, & Ammann, 1992). As Cranach (1992) defines it, “a social representation is the organized knowledge on the level of a social system, concerning a certain topic” (p. 10). According to the views of these scholars, individual action is socially planned, steered, and controlled by social representations. That is to say, social representations of a group form the ideological basis for the justification of individual knowledge and action. Individuals take their knowledge from the social representations of their reference groups and act correspondingly. If social representations control the actions of individual members, then it would follow that individual members’ actions can be viewed as reflections of social representations of a given group.

Giving priority to social matters rather than purely individual ones, the new paradigm in social psychology is concerned more with persons instead of aggregates. In its search for meaning, as Smith, Harré, and Langenhove (1995) claim, it attempts “to understand the psychological conceptions of participants” (p. 4). To put it in another way, it attempts “to understand the meanings their psychological and social worlds hold for respondents” (p. 5).
The present study finds that the new paradigm of human beings as agents in social psychology research raises important questions about the learner’s perspective and the relation between learners’ perspectives and learners’ actions.

1.4.4 Theories of Cooperative Learning

Cooperative learning is an educational innovation that has been used and researched extensively in the field of education. The literature on cooperative learning research focuses predominantly on the positive outcomes of this instructional strategy in mainstream education (e.g., Johnson & Johnson, 1989; Slavin, 1995a, 1995b) and more recently in second language education (e.g., McGroarty, 1989, 1992). A small but increasing number of studies have been conducted to explore the process of cooperative learning, taking into consideration its sociocultural aspects (e.g., Swain & Miccoli, 1994).

1.4.4.1 Cooperative Learning as a Causal Process

A general assumption held by many in both mainstream and second language education research is that cooperative learning is an “important instructional tool” that helps teachers “accomplish a number of important goals simultaneously” (Johnson, Johnson, & Holubec, 1994a, p. v). The metaphor of “instructional tool” suggests that Johnson et al. see cooperative learning in a causal framework, as a tool which teachers apply to students in order to achieve results, where teaching is a causal process and students are “material” that the tool is used upon. In their introduction of cooperative learning to classroom teachers, Johnson et al. list three goals that cooperative learning helps teachers to achieve at the same time:

First, it helps you raise the achievement of all students, including those who are gifted or academically handicapped. Second, it helps you build positive relationships among students, which is the heart of creating a learning community that values diversity.
Third, it gives students the experiences they need for healthy social, psychological, and cognitive development. (p. v)

Academic achievement, intergroup relationships, and psychological health are important issues in education. Johnson et al. believe that cooperative learning is able to work on these three fronts simultaneously and, because of that, it places itself above all other instructional methods.

**1.4.4.2 Cooperative Learning as Involving Active Social Agents**

Cooperative learning in second language education is also believed to work on three fronts simultaneously. According to McGroarty (1989, 1992, 1993), cooperative learning can maximize L2 acquisition by providing opportunities for both language input and output. It offers students opportunities to draw on their L1 while developing L2 skills. It also includes opportunities for content learning. Correspondingly, Cummins’ (1991b, 1992) bilingual proficiency theory offers a model which interrelates these three goals.

However, if students are viewed as active social agents, then many questions remain untackled in the research literature on cooperative learning. Just to list a few: What is the nature of cooperative learning as a sociocultural activity? How do L2 students interpret this instructional strategy? How do they experience cooperative learning in ESL classes? Do they have unified perceptions of cooperative learning, or do they have different views? Do they act consistently during cooperative learning activities, or do they act differently at different times? How do they deal with the competing demands of the three goals identified above?

In their collective work on social psychology of everyday thinking, Billig, Condor, Edwards, Gane, Middleton, and Radley (1988) conceive that “thinking takes places through the dilemmatic aspects of ideology” (pp. 1-2). That is to say, ideology comprises opposing themes.
To use their own words, "ideology is not seen as a complete, unified system of beliefs which tells the individual how to react, feel and think. Instead ideology, and indeed common sense, are seen to comprise contrary themes" (p. 2). For Billig et al., these contrary themes serve as preconditions for dilemmas. According to Mautner's (1996) *A Dictionary of Philosophy*, "a dilemma is a situation requiring a difficult choice between alternatives" (p. 109). As Billig et al. elaborate, "in . . . dilemmas the decision-maker is faced with a choice, in which the balance of profits and losses seem to be equally weighted between the alternative courses of action" (p. 10).

Following Billig et al.'s (1988) dilemma logic, L2 students may not have unified conceptions of cooperative learning. They may simultaneously hold multiple goals and beliefs about cooperative learning and these multiple goals and beliefs can be in conflict within and among individual students themselves. If these conflicting goals and beliefs serve as preconditions for dilemmas, as Billig et al. suggest, then L2 students may be faced with difficult choices when working in cooperative learning situations and have difficult decisions to make between alternative actions. If that is the case, then a dilemmatic perspective on cooperative learning by L2 students may provide insights, particularly with respect to their problems of learning a second language and learning the content knowledge and the culture in that second language.

### 1.4.5 Situating the Present Study

In relation to the theories reviewed in this chapter, this study takes a functional perspective and views language as a system for constructing meaning and language use as influenced by its social and cultural context. It perceives second language learning as a language socialization process, during which Chinese immigrant students learn not only
English as a second language, but also content knowledge and culture, particularly the educational culture of ESL classrooms, part of which is cooperative learning. The study takes Chinese students as active social agents acting purposefully as individuals and as a group in the flow of cooperative learning activities to achieve intended goals. Most of all, it considers cooperative learning as a potentially dilemmatic situation in which Chinese students may simultaneously hold multiple and conflicting beliefs and goals and may encounter unsatisfactory alternatives and have difficult choices to make.

By situating itself with one set of approaches, this study does not imply that other approaches are to be rejected as unreasonable and erroneous. On the contrary, the study does not assume a simple “truth” and sees the approaches discussed as reasoned and justified and simultaneously open to criticism. In his work on rhetorical approach to social psychology, Billig (1996) cites Perelman’s comment on disagreements and reasonableness in argumentation: “Between the two opposed interpretations, both are seen as equally reasonable; we will choose, but not on the falsity or irrationality of the one or the other” (p. 123, emphasis in the original text). In the case of this work, the decision is made based on the research focus of the study.
CHAPTER 2:

PRETEXT OF COOPERATIVE LEARNING

As an educational innovation, cooperative learning has a long history of practical use. Since ancient Greece and Israel, teachers have allowed or encouraged their students to work together in group discussions or debates (Sharan, 1990b). In the late eighteenth century and early nineteenth century, George Jardine, professor of logic and philosophy at the University of Glasgow from 1774 to 1826, designed a method of peer review of frequent and sequenced writing assignments to acculturate his poorly prepared students in respect of age (often as young as thirteen or fourteen) or of previously acquired knowledge to traditional university education (Gaillet, 1994). In the last three decades of the 19th century, Colonel Parker's instructional methods of structuring cooperation among students greatly influenced American education (Johnson, Johnson, & Holubec, 1994b). Following Parker, Dewey (1924) promoted the use of cooperative learning groups as part of his project method in instruction. Kilpatrick (1918) and Miel (1952) emphasized small group work or cooperative tasks in classrooms as strategies for helping students learn to solve conflicts. While cooperative learning methods have been used in schools over the years, it was not until the early 1970s that "some significant developments began to take place in this age-old technique. For the first time, specific cooperative learning strategies began to be developed and, even more importantly, to be evaluated, in a wide variety of teaching contexts" (Slavin, 1995a, p. ix).

Cooperative learning has not only a long history of actual classroom use, but also a rich history of research. It is among the most extensively evaluated alternatives to traditional teacher-fronted instruction (Fathman & Kessler, 1993). Since 1898, but particularly since the 1970s, numerous research studies have been conducted on cooperative, competitive, and
individualistic learning (Johnson, Johnson, & Holubec, 1994b). In this chapter, recent research literature on cooperative learning in the mainstream classroom will be reviewed, followed by a review of recent research literature on cooperative learning in the second language classroom. Questions will be raised about possible theoretical explanations of the process of achieving the goals of cooperative learning for second language learners. The rationale of the present study will be discussed at the end of the chapter, followed by the research questions.

2.1 Cooperative Learning in the Mainstream Classroom

Cooperative learning has been offered to the mainstream classroom as an alternative to ability grouping for several reasons. One major reason is the effectiveness of ability grouping, and another major reason concerns equity. A review by Slavin (1990a) of 29 studies on the effects of ability grouping on student achievement in secondary schools indicated that such grouping had little or no effect on the overall achievement of secondary students as measured by standardized tests, and that it provided no advantage or disadvantage for student learning compared to heterogeneous grouping. Students in high-track classes did not learn any more than high achieving students in heterogeneous classes, nor did students in low-track classes learn any less than low achieving students in heterogeneous classes. Because of the antidemocratic, antiegalitarian nature of ability grouping, and the possibility that students in the low groups were at risk for delinquency, absenteeism, dropout, and other social problems, as well as the lack of any evidence of positive effect, Slavin (1990b) suggested that the practice be greatly reduced. He claimed that, whereas there was much research still to be done to understand the effects of ability grouping in secondary schools on students' achievement, it was time "to move beyond these comparisons to consider more fully how secondary schools can adapt instruction to the needs of a heterogeneous student body" (1990a, p. 495).
While Slavin questioned the effectiveness of ability grouping, Gamoran (1992) challenged its equity. His review of more recent research showed that ability grouping not only rarely produced higher overall achievement in schools than heterogeneous grouping, but often contributed to inequality. The quality of instruction and the climate for learning favored high-level groups and honors classes over low-level groups and remedial classes. As a result of unequal instruction and unequal behavior and attitudes among students, students in low-level groups and remedial classes fell farther behind. This led Gamoran to suggest that the use of ability grouping be curtailed, starting with its most rigid forms in secondary schools such as fixed program assignment.

As a contrast to ability grouping, cooperative learning is believed to help teachers accomplish a number of important educational goals simultaneously. In his book on cooperative learning theory, research and practice, Slavin (1995a) claims that cooperative learning helps teachers raise the achievement of all students, including those who are gifted or academically handicapped; it also helps teachers build positive relationships among students in desegregated classrooms, regardless of gender and ethnicity; furthermore, cooperative learning helps teachers improve such a wide variety of outcomes as student self-esteem, peer support for achievement, internal locus of control, time on task, liking of class and of classmates, cooperativeness, altruism, and the ability to take another’s perspective. This section focuses on two major areas of cooperative learning research in the mainstream classroom, namely student achievement and interracial relationships.

2.1.1 Cooperative Learning and Student Achievement

In cooperative learning literature, a generally held view is that working together to achieve a common goal produces higher achievement (measured by standardized tests) than
does working alone (Johnson & Johnson, 1991; Johnson & Johnson, 1989, 1990, 1994; Johnson, Johnson, & Holubec, 1994a; Kagan, 1992; Sharan, 1990a; Slavin, 1995a). Studies of cooperative learning helping to raise student achievement are reported to have taken place "in urban, rural, and suburban schools... at grade levels from 2 to 12, and in subjects as diverse as mathematics, language arts, writing, reading, social studies, and science. Positive effects have been found on such higher-order objectives as creative writing, reading comprehension, and math problem solving, as well as on such basic skills objectives as language mechanics, math computations, and spelling" (Slavin, 1987, p. 10).

To evaluate the effectiveness of cooperative learning, Johnson and Johnson (1989) reviewed 378 experimental studies on achievement conducted since 1898. Their meta-analysis of these studies indicated that cooperative learning results in significantly higher achievement and retention than do competitive and individualistic learning. In addition, Johnson and Johnson also found that cooperative learning tends to result in more higher-level reasoning, more process gain (i.e., frequent creation of new ideas and solutions), and greater group-to-individual transfer (i.e., transfer of what is learned within one situation to another).

More recently, Slavin (1995a) carried out an analysis of 90 empirical studies of cooperative learning and student achievement. The 90 investigations compared cooperative groups with control groups across the curriculum among students of various ages and from different backgrounds. Of the 99 experimental-control comparisons presented in the 90 studies, 63 (64%) demonstrated statistically significant gains for experimental groups. Of the studies which significantly favored cooperative learning, a few found better outcomes for high than for low achievers, and a few found that low achievers gained the most. The majority, however, found equal benefits for all students (high, average, and low achievers) as opposed to their counterparts in control groups. The positive effects of cooperative learning on student
achievement appeared across all subject areas of the curriculum, and in both secondary and primary schools in urban and rural areas.

Webb and Farivar's (1994) study demonstrated that cooperative learning methods which include specific instructions on giving elaboration rather than only the answer to group members who appear to need help are particularly effective for minority students. Their seventh-grade Latino and African-American students gave and received more elaborated help in small groups and showed higher achievement on a general mathematics test than those in cooperative classes without specific instructions on academic helping skills.

Research on cooperative learning and student academic achievement has not only been carried out in North America. Sharan and Shaulov's (1990) experiment was conducted in 17 sixth-grade classrooms (n=553) located in four Israeli elementary schools. The cooperative learning approach was found to generate results superior to those produced by the whole-class method in student academic achievement in all three subject areas evaluated: arithmetic, Bible, and (Hebrew) language (including literature). In the cooperative learning classes, the number of low achievers declined markedly from 30 to 10 per cent in Bible studies and reading comprehension, and by 10 per cent in arithmetic. On the other hand, the number of high achievers increased dramatically from 35 to 50 per cent in Bible studies and from 22 to 50 per cent in reading comprehension, and noticeably from 18 to 28 per cent in arithmetic. The relative proportion of high, medium, and low achievers did not change in the classes taught with the whole-class method. Sharan and Shaulov found that motivation to learn was the mediating variable between the students' prior achievement and their achievement at the end of the research. Cooperative instructional methods had a decisive impact on the students' level of motivation to learn and, in turn, on their later achievement.
The large body of research reviewed above indicates that certain forms of cooperative learning are considerably more effective than traditional methods in improving student performance on standardized tests of various content subjects. However, several issues arise from this research. First, many of the studies, especially the earlier ones, were not carried out in ordinary lessons and, as artificial experiments, may not be transferable to normal classroom conditions. As Jacob, Rottenberg, Patrick, and Wheeler (1996) point out, “In conducting field experiments, researchers are careful to control the implementation of cooperative learning. Such control is difficult, if not impossible, in actual classrooms” (p. 275). Second, many of the studies treat cooperative learning methods as independent variables and outcomes as dependent variables, and look for cause-effect relations. Due to the nature of these studies, the tasks given to students are usually highly structured compared to more general tasks given to control groups. As the British researchers Galton and Williamson (1992) argue, the differences found between experimental and control groups could have been due to the nature of the tasks rather than the cooperative learning methods.

2.1.2 Cooperative Learning and Interracial Relations

Cooperative learning is considered as an ideal solution to the problem of developing harmonious interracial relations in desegregated classrooms. According to Slavin (1995b), cooperative learning methods satisfy the conditions “for positive effects of desegregation on race relations: cooperation across racial lines, equal-status roles for students of different races, contact across racial lines that permits students to learn about one another as individuals, and communication of unequivocal teacher support for interracial contact” (p. 629).

The specific effect of cooperative learning methods on relationships between students in multi-ethnic classrooms has been widely researched in North America. Numerous studies of
friendship between students of different ethnic backgrounds seem to have confirmed that students in cooperative classrooms are more likely to make cross-ethnic friendship choices than do students who have been in the traditionally organized classrooms. Aronson (1978) found a positive effect for the use of a jigsaw method on tolerance, acceptance, and trust among children from different ethnic groups. King (1986) examined the effect of cooperative group work methods on prejudice reduction in American schools and suggests that the use of these methods enhances interracial friendships.

In their research involving about 1000 students, Kagan, Zahn, Widaman, Schwarzwald, and Tyrrell (1985) reported that improvements in ethnic relations were greater than any other outcomes from cooperative learning. Students in traditional classrooms listed 9.8% of their friends as from a race other than their own while students in the cooperative classroom listed 37.9%. Self-segregation among students was reduced or eliminated dramatically following relatively brief cooperative learning experiences.

More recently, Slavin (1995b) reviewed 19 cooperative classroom experiments which used measures of responses to such sociometric items as “Who are your best friends in this class?” Sixteen studies demonstrated that when the conditions for positive effects of desegregation on race relations are met, students are more likely to have friends outside their own racial groups than they would be in traditional classrooms. Although in a few studies cooperative learning resulted in improvements in majority-minority friendship but not minority-majority friendship, in most studies improvements in intergroup relations were equally strong toward majority and minority students.

Research has also been conducted in Israel to investigate the effect of cooperative learning on interracial relations. In a study in Israeli junior high schools, Sharan, Kussell, Hertz-Lazarowitz, Bejarano, Raviv, and Sharan (1984) compared cooperative learning
techniques with traditional whole-class instruction to find out how members of different ethnic
groups treated each other. Their findings showed that cooperative learning produces more
cross-ethnic cooperation and less negative and competitive behavior between members of
different ethnic groups. In another study, Sharan and Shachar (1988) found that students in
cooperative learning classes improved attitudes and behavior toward classmates from different
ethnic groups. In his recent review, Sharan (1990c) examined research that explored the impact
of cooperative learning methods on students' status in the multi-ethnic classroom and
concluded that there are positive outcomes in terms of social status as well as academic
attainment when conditions are created for greater interaction on an equal basis among
students from different ethnic backgrounds. His review further confirmed the view that
cooperative learning creates opportunities to improve intergroup relations in multi-ethnic
classrooms.

In the UK, research has recently begun to examine the efficacy of cooperative learning
methods in improving intergroup relationships. Smith, Boulton, and Cowie (1993) reported on
a full-school-year study that focused on ethnic preference and stereotypes and on relationships
with actual classmates. Their results suggested that students who had experienced cooperative
group work tended to like each other more, irrespective of race and gender, and to give more
positive behavioral nominations to other-race classmates. Also found were some increased
cross-race preference choice and some reductions in negative stereotypes of other ethnic
groups. However, in a later study which lasted two school years, Cowie, Smith, Boulton, and
Laver (1994) found different results. Although many of the students reported that they liked
cooperative group work, there was no impact on measures of friendship and sociometric status,
and no impact on measures of racial or ethnic prejudice.
Despite the few exceptions, the majority of the studies reviewed in this section seem to provide strong evidence for the view that intensive, regular cooperative contact can forge real and lasting friendships and can significantly reduce prejudice among students from different ethnicities. Nevertheless, several points need to be discussed here. Firstly, most of these studies are outcome-oriented rather than process-oriented. Researchers set up experimental and control groups, and administer a pre-test before starting the cooperative learning procedures. Some time later, they come back to give a post-test to see if the cooperative learning treatment has made any difference. They do not observe the groups in action and neglect the contextual characteristics of the everyday classroom. On the contrary, “a sociocultural approach to research views cooperative learning methods as processes that influence and are influenced by their broader educational contexts. Such an approach explicitly takes into account and acknowledges the importance of the contextual features of everyday classrooms” (Jacob et al., 1996, p. 256). In addition to whether or to what extent interracial relations have improved, further research needs to be done to observe cooperative groups in natural situations and to explore how interracial relations are improved or not improved through cooperative learning in broader educational and cultural contexts.

Secondly, these studies give little insight into difficulties that cooperative learning engenders. As Cohen (1994) holds, “it is true that an instructor is more likely to produce positive intergroup relations with cooperative groups than with a competitive or individualized reward system. Yet even under cooperative conditions, groups can fail to ‘mesh’ and to achieve a unified ‘we’ feeling. Interpersonal relations can at times be the opposite of harmonious . . .” (p. 18). The studies reviewed in this section give very little advice to classroom teachers on how to facilitate the positive effects that are claimed. Cooperative learning looks like a promising method for developing harmonious interracial relations in
desegregated classrooms, but teachers need to know more about the conditions under which it functions most effectively.

To summarize, the studies examined above seem to indicate that cooperative learning methods can be used by teachers to achieve academic and social goals in the mainstream classroom. However, there are some reservations about their research approach, methodology, and practical implications.

2.2 Cooperative Learning in the Second Language Classroom

In recent years, cooperative learning has emerged as a significant concept and instructional practice within the field of second language education. Attention has been paid to the pedagogical and psychological rationale of its use in second language classrooms (Long & Porter, 1985) and to possible benefits it might have in bilingual programs and second or foreign language settings (Coelho, 1992, 1994; Holt, 1993; Kessler, 1992; McGroarty, 1989, 1992). The optimum conditions for second language learning and those for cooperative learning have been compared to see if they are in any way similar (Fathman & Kessler, 1993). Instructional processes and planning of second language education have also been compared with those of cooperative learning methods to see if there are any parallels (McGroarty, 1993). In addition, studies have been conducted to evaluate, among other things, the effectiveness of cooperative learning on second language acquisition, first language maintenance, and the acquisition of content knowledge. This section reviews the research literature in these three areas respectively.
2.2.1 Cooperative Learning and Second Language Acquisition

A commonly held belief in the field of second language education is that cooperative learning maximizes second language acquisition by providing opportunities for both language input and output (Fathman & Kessler, 1993; Holt, Chips, & Wallace, 1992; Long & Porter, 1985; McGroarty, 1993). Compared to research on cooperative learning in mainstream education, research on cooperative learning in second language education is surprisingly less extensive. Although theorists take cooperative learning to be beneficial to second language learners, to date only a few studies have focused on cooperative learning and second language acquisition. In spite of the limited number of studies, the existing body of research seems to support the belief that cooperative learning and associated forms of group work offers second language learners more opportunities for interaction in L2 and helps them improve second language proficiency.

An early study on group work and interaction in L2 was carried out by Long et al. (1976) in intermediate-level, adult ESL classes. The researchers compared teacher-led discussions with pair discussions to examine the amount and variety of student talk in both contexts. Their results revealed that students in pairs produced a significantly greater amount and variety of student talk than in the teacher-led discussions. They not only talked more, but also produced a wider range of language functions (e.g., rhetorical and interpersonal).

In a study on the input available to and language produced by second language learners, Pica and Doughty (1985a, 1985b) compared teacher-fronted discussions and small group discussions in a classroom setting involving low-intermediate-level ESL students. They found that individual students had more opportunities to practice using English and engage in direct interaction in groups than in teacher-fronted discussions through taking more turns, producing more samples of the target language, and receiving more feedback from other group members.
In a later report, Doughty and Pica (1986) compared language use in teacher-fronted lessons, group work, and pair work. They noted that significantly more negotiation for meaning, which is believed to enhance second language acquisition, occurred in groups (66% of total talk) and in pairs (68%) than in the whole-class setting (45%).

In a later article, Pica (1987) reported on research involving low-intermediate level adult ESL students engaged in two types of classroom activities in a teacher-fronted setting and in small groups of four. It was found that the teacher-directed participation pattern generated a relatively small amount of modified interaction in both activities. The occurrence of such interactional moves as confirmation and comprehension checks and clarification requests, which are believed to be important to second language acquisition, was fairly low. The group participation pattern, on the other hand, presented a complex picture. Group participants produced significantly more interactional moves to clarify or confirm message content or check the comprehensibility of their utterances in one activity, but not in the other. In conclusion, Pica emphasized the importance not of group work per se, but of the nature of classroom activities to be accomplished in small groups. Slater's (in press) research on the influence of illustrations on pair-work interaction reported similar findings.

In a classroom situation where English was the L1 and Dutch was a foreign language, Deen (1987) analyzed classroom interactions in a cooperative learning situation and a teacher-centered situation and found that a cooperative jigsaw activity created much more practice opportunities for individual learners in a university Dutch class. Students asked far more questions of different kinds. By doing so, they produced input for each other and, at the same time, practiced natural use of the language. It was also noted that the proportion of errors in cooperative student work was far lower than that in teacher-led instruction primarily because students had many more chances to use the language in cooperative work.
In addition to the focus on the impact of cooperative learning on the amount of interaction in L2, research has also been carried out to examine the effect of cooperative learning on second language proficiency. Sharan, Bejarano, Kussell, and Peleg's (1984) study involved junior high school Israeli students learning English as a second language. They compared cooperative learning methods with the whole class method and found that cooperative learning resulted in better performance on an overall measure of English proficiency and on a listening comprehension subtest. The researchers concluded that students had opportunities to speak more frequently and to use different language structures in the small group settings.

Research has also been conducted to evaluate the effect of cooperative learning on language proficiency in a foreign language learning situation. Bejarano (1987) reports on a study involving junior high school students learning English as a foreign language in Israel. Students in classes using cooperative learning methods were found to make significant improvements in an overall English proficiency test and in a listening comprehension subtest as opposed to students in classes using whole-class methods.

2.2.1.1 Issues of L2 Academic Language Development

The existing body of research in the second language classroom appears to indicate that cooperative learning methods maximize second language learning by providing opportunities for both language input and output. Nevertheless, very little research has looked at the kinds of discourse produced in small groups and examined the quality of L2 acquisition. In his discussion of language proficiency, Cummins (1991a) distinguished between conversational language proficiency and academic language proficiency (which will be discussed in more detail later in this chapter). Research based on Cummins' framework (e.g., Collier, 1995)
suggested that while conversational language proficiency is relatively easier to master, academic language proficiency takes much more time and effort. Regarding students’ L2 achievement gained through cooperative learning methods as reported in the studies reviewed above, one must ask the question: What type of language is acquired, academic or conversational?

In his study of monolingual English-speaking students in the UK, Dowrick (1993) found that during a cooperative learning arrangement in which students worked jointly with a partner on some mathematical tasks and were required to reach agreement before finishing, more low order talk was generated than high order talk. The major reason, as he saw it, was that partners had to coordinate their actions constantly so that talk was almost continuous in low order mode. Dowrick defined low order talk as talk which did not relate to mathematical aspects of the tasks or which merely described work done on them. High order talk was defined as analyzing or evaluating mathematical aspects of the tasks, or giving explanations or reasons. A question that emerges from that research, and which should be asked by other studies on cooperative learning and second language acquisition described above is: Is the reportedly increased input and output high order talk or low order talk?

To answer the above question, it is obvious that we need more studies which examine the quality of L2 discourse in cooperative learning situations. We need to look at the discourse produced by ESL students in cooperative learning groups to see whether or not it is high order talk or low order talk, or academic language or conversational language.

2.2.2 Cooperative Learning and First Language Maintenance

In the fields of second language and bilingual education, it is now believed that the use of the first language (L1) is crucial in early L2 acquisition and is beneficial at all levels of L2
learning (Auerbach, 1993). Cooperative learning is believed to have the capacity to help second language learners draw on their primary language resources as they develop L2 skills. McGuoarty (1989, 1992) reviewed a small number of studies that researched the expanded possibilities of cooperative learning for using primary language resources. Cohen (1986) and her colleagues observed Spanish-English bilingual classrooms and noted that bilingual students in cooperative groups tended to provide necessary information to Spanish monolingual students and helped to extend or clarify their comprehension through discussion in their L1. Wong-Fillmore, Ammon, McLaughlin, and Ammon (1985) reported that, when working in groups, bilingual students acted as intermediaries serving as crucial links in providing information to other group members in both languages. Neves’ (1983) work revealed that the frequency of task-related talk in Spanish as the first language in cooperative groups was proportionately related to student gains in English as a second language. Díaz, Moll, and Mehan (1986) found that student group discussion of a reading lesson in Spanish as L1 helped improve reading comprehension in English as L2. Deen (1987) reported that in a Dutch as a foreign language situation, more English (L1) was used by students to clarify the information to be conveyed while more Dutch was used as students were doing the team project.

2.2.2.1 Issues of L1 Academic Discourse Development

While the limited number of studies available seem to show that cooperative learning has the potential for increasing task-related use of the first language, it should be pointed out that a prime area of concern of most research on cooperative learning and first language maintenance is how the use of the first language can enhance second language development in cooperative groups. However, little attention has been focused on the quality of student discourse in the first language. Even less attention has been given to the development of ESL
students' academic discourse in their L1. Research shows that developing academic discourse for school purposes is important, complex, and takes considerable time (Collier, 1995). The question arises: Should ESL students develop academic discourse in both L1 and L2 or in just one? And how would the answer to this question affect policy in the ESL classroom?

2.2.2.2 Issues of Language Choice

Cooperative learning in second language classrooms raises the question of language choice such as reasons for L1 and L2 use (e.g., Poulisse & Bongaerts, 1994), learner preference (e.g., Flowerdew & Miller, 1995; Harbord, 1992), peer attitudes towards L1 and L2 use (e.g., Cortazzi & Jin, 1996; Flowerdew, in press; Tsui, 1996), L1 and L2 use and identity (e.g., Goldstein, 1997; McKay & Wong, 1996), parental influence (e.g., Salzberg, 1998), development of L2 academic language (e.g., Jacob et al., 1996), functions of L1 and L2 use (e.g., Dunkelblau, 1996; Yang, 1993), and the role of L1 and L2 in academic language use (e.g., Lin, 1990; Wong, 1993). These issues and some of the specific findings in the above mentioned research will be discussed in more detail in chapter 5 in relation to the results of this study.

2.2.3 Cooperative Learning and the Acquisition of Content Knowledge

Another claimed benefit of cooperative learning in the second language classroom is that it makes more readily available to students the content of the curriculum and the language needed to process it. In their detailed account of the principles of cooperative learning for language and content gains, Kagan and McGroarty (1993) argue that:

By providing a variety of ways to expose students to academic content and creating different situations in which they experience and discuss curriculum content, cooperative learning serves both language and content curriculum goals. Through
cooperative learning there is improved comprehension and production of language, and both these outcomes aid attainment of subject matter goals. (p. 47)

In her review of the beneficial effects of cooperative learning for second language instruction, McGroarty (1989, 1992) examined a number of studies that have been done in this area. She summarized her review by stating that the principal curriculum benefit of cooperative learning in the second language classroom is that it offers additional ways to incorporate content areas into language instruction in both ESL and bilingual settings.

There is very little additional research in this area. It may therefore be valuable to comment on some different but parallel research which has looked at cooperation between the expert (i.e., the teacher) and the novices (i.e., the students). In his observational study of a high school foreign language class, Freeman (1992) described how the teacher and her students worked together through cooperative interactions to create a shared understanding of French as both content and activity. The findings showed that “the subject matter is not the French language itself, but the interactions which generate it. Interaction produces talk which is channeled or transformed into content” (p. 58).

Mohan and Smith’s (1992) research also looked at cooperation between the instructor and the students. The purpose of their study was to investigate how and why a group of Chinese students were able to succeed in a graduate level adult education course, despite the fact that they had inadequate background knowledge about the subject matter and limited English proficiency (as measured by TOEFL tests). Their results revealed that the cooperative interaction of the instructor and the Chinese students constructed a context that enabled the students to develop the background knowledge and gain access to the guidance needed to support work on the assignments. In other words, the instructor, as the expert, had structured the course interaction and the series of assignments in such a way that the novices could
participate in the interaction and undertake assignments that may otherwise have been beyond their apparent capabilities. While such research may suggest how cooperation between the teacher and the learner might help students learn language and content simultaneously, specific studies are needed to examine how cooperation assists language and content gains among students.

2.2.3.1 Issues of Prior Knowledge in L1 and Learning New Content Knowledge in L2

In her observational study of a group of monolingual English speaking students working cooperatively on a science project, Webb (1990) noted that student prior knowledge was of vital importance in the production of new content knowledge. Student discussions which aimed to produce information contained many references to prior knowledge. Webb's research is one of the few studies which discuss the role of students' prior knowledge in their learning of new content knowledge in cooperative groups. Considering ESL students in content classes, what is the role of their prior knowledge in L1 in their learning of new content knowledge in L2? How does cooperative learning help ESL students draw on their prior knowledge in L1 and expand their content knowledge in L2? Answers to these questions will help us better understand the relationship between cooperative learning and the simultaneous learning of language and content in an ESL context.

To sum up, research in the second language classroom indicates that cooperative learning is potentially beneficial for ESL students in a number of ways. It can maximize second language acquisition by offering opportunities for both language input and output. It can also help students draw on their first language while developing second language skills. It includes opportunities for the integration of language and content learning. While the reported beneficial effects of cooperative learning in the second language classroom are impressive,
more research needs to be done to examine the types of L1 and L2 discourse produced in cooperative groups to find out about students’ development of academic language. Research also needs to be conducted to investigate the role of students’ prior knowledge in L1 in learning new content knowledge in L2 in cooperative groups.

2.3 Bilingual Proficiency Theory: A Possible Explanation

Research literature in second language education has claimed three particularly important goals of cooperative learning for second language learners, namely L2 development, L1 maintenance, and content knowledge acquisition. How do these seemingly unrelated goals connect to one another? What is the interrelationship, if any, between them? Cummins’ (1991b, 1992) bilingual proficiency theory may be used as a possible theoretical explanation of how the process of achieving the three goals of cooperative learning for second language learners can work.

2.3.1 Two Levels of Language Proficiency: Conversational and Academic

As mentioned earlier in this chapter, Cummins (1991a) distinguished between conversational language proficiency and academic language proficiency. He offered the following iceberg metaphor (Figure 1) to highlight the distinction between the two levels of language proficiency. Conversational language proficiency refers to the visible, measurable, and surface aspect of language that deals with pronunciation, basic vocabulary, and grammar; academic language proficiency refers to the less visible, less quantifiable aspect of language that deals with semantic and functional meaning.
Cummins (1991a) described academic language as context reduced and cognitively demanding, and conversational language as context embedded and cognitively undemanding. In context embedded communication, the language is assisted by a wide range of meaningful paralinguistic and situational cues. In context reduced communication, on the other hand, successful interpretation of the message depends heavily on knowledge of the language itself. Communicative tasks and activities are cognitively undemanding when the linguistic tools have become automatized and require little active cognitive involvement for appropriate performance. When the linguistic tools have not become automatized and require active cognitive involvement, communicative tasks and activities are cognitively demanding. For example, the everyday world outside the classroom involves context embedded, cognitively undemanding conversational language, whereas many of the classroom tasks and activities require context reduced, cognitively demanding academic language. According to Cummins, while conversational language takes less than two years to acquire for school age learners, academic language takes as long as five to seven years to learn. This claim is supported by findings in large-scale studies (e.g., Collier, 1987, 1995; Collier & Thomas, 1989).

Cummins' (1991a) conversational and academic language proficiency theory addresses the gap between second language learners' attainment of peer-appropriate fluency in L2 and their attainment of grade norms in academic aspects of L2. It draws educators' attention to the
distinction between conversational fluency and academic aspects of L2 performance. As Cummins (1994) himself put it, “it is clearly not sufficient to get students over the initial difficulties of acquiring English. Progress must be monitored for several years after students appear to be comfortable in English to ensure that they are coping with and acquiring an ability to manipulate the more formal, impersonal, and abstract language that becomes increasingly important for school success in upper grades” (p. 54). In other words, it is of crucial importance that second language learners develop academic language proficiency in L2.

2.3.2 Bilingual Proficiency Theory: Transfer Across Languages

Cummins (1991b) also proposed the idea that L1 and L2 context-reduced, cognitively demanding proficiencies are manifestations of a common underlying proficiency and are interdependent. Take, for example, Chinese and English. Although their surface aspects (e.g., pronunciation and written forms) are obviously different, Cummins’ theory assumes that there is an underlying cognitive/academic proficiency that is common across the two languages. This common underlying proficiency makes it possible for cognitive/academic skills (e.g., conceptual knowledge, subject matter knowledge, higher-order thinking skills, reading strategies, and writing composition skill) to transfer between any two languages. To use Cummins’ (1992) example:

An immigrant child who arrives in North America at, for example, age fifteen, understanding the concept of ‘honesty’ in his or her L1 has only to acquire a new label in L2 for an already existing concept. A child, on the other hand, who does not understand the meaning of this term in his or her L1 has a very different, and more difficult, task to acquire the concept in L2. (pp. 22-23, emphasis in original)

By the same token, content knowledge (or subject matter knowledge, in Cummins’ terms) acquired through the medium of L1 transfers or becomes available to L2. Second language learners only need to acquire new L2 labels.
Cummins (1992) used the above dual iceberg metaphor (Figure 2) to represent his bilingual proficiency theory. Theoretically speaking, experience with either language can enhance development of the common proficiency underlying both languages. In practice, transfer is suggested to be more likely to happen from minority to majority language because of the lower status of the minority language, and because of the greater exposure to literacy in the majority language and the strong social pressure to learn it. This implies that the same may also be said for content knowledge. Whereas content knowledge learned in L1 will transfer to L2, content knowledge acquired in L2 is unlikely to transfer to L1.

2.3.3 Continued Development of L1

Based on his conceptualization of the relationships between L2 and L1 proficiency, Cummins (1993, 1994, 1995) strongly proposed that schools should play a role in supporting the continued development of L2 learners’ first languages. He argued that school programs should attempt “to add English to the language that students bring to school while encouraging them to continue developing their first-language skills” (1994, p. 53), because a strong conceptual foundation attained in L1 will provide second language learners with greater cognitive power for the acquisition of L2, and will contribute to L2 learners’ academic
development. In this sense, programs that promote the development of additive bilingualism among second language students "have considerably more potential to contribute to the overall goals of educational reform than do programs that promote first language (L1) shift" (1995, p. 7).

Cummins' (1991b, 1992) conceptualization of the relationships between L1 and L2 proficiency and his proposals for bilingual education based on his conceptualization has had an enormous impact on language teachers as well as researchers. As Hulstijn (1991) commented:

They have exerted great influence on both researchers studying the componential nature of language proficiency, and on educationalists responsible for the design and implementation of transitional or submersion models of primary education in bilingual speech communities. (p. 11)

In summary, these three goals of cooperative learning for second language learners, namely developing L2, maintaining L1, and acquiring content knowledge, are closely connected to one another. The interrelationship of these goals can be explained with Cummins' (1991b, 1992) bilingual proficiency theory. As language proficiency has two levels, conversational language and academic language, and as academic language proficiency is crucial for school success in the upper grades, it is important that second language learners develop academic language proficiency in L2. Since L1 and L2 academic language proficiency is interdependent and shares one common underlying proficiency, content knowledge developed in L1 transfers or becomes available to L2. In this case, second language learners need only to learn labels in L2. As transfer is more likely to take place from L1 to L2, it is important that second language learners continue developing their L1 academic language proficiency to stimulate transfer to L2, and to profit from the benefits of additive bilingualism. All in all, the development of second language learners' L1 academic language proficiency is
positively related to the acquisition of the second language and the learning of content knowledge.

2.3.4 Issues of Language as Meaning Versus Language as Conduit

Cummins' (1991b, 1992) bilingual proficiency theory suggests that in a bilingual setting, L2 students can develop L2 academic language proficiency and acquire content knowledge by using L1. They learn a meaning in L1, and use L2 to learn the label for that meaning. For instance, they learn the concept of fraction in Chinese and then acquire the terminology in English. Under this model, is language treated as a conduit, separate from meaning? To continue the conduit metaphor, is meaning treated like water, which flows in the channel of language but is separated from language?

The conduit model implies that L2 students can translate labels easily. But, what if students cannot simply translate labels from L1 to L2? What if, as they learn a language, they learn a set of meanings, not just a set of labels? From a functional linguistics perspective, Halliday and Martin (1993) regard language "as a system for constructing meaning, rather than a conduit through which thoughts and feelings are poured" (p. 23). In other words, they view language "as a meaning-making system rather than a meaning-expressing one" (p. 23). With respect to content knowledge, they argue that it is constructed by text. The way content knowledge is organized and worded by text can "present special problems for a learner, over and above the unfamiliar subject matter and its remoteness from everyday experience" (p. 124). For instance, students of all ages and of all languages may find scientific texts hard to read. One reason may be that textbooks build scientific classification rather than common sense classification. Specialized knowledge is not just a set of technical labels. The labels imply taxonomies which organize the world differently from common sense. Halliday and
Martin used the example of diseases to illustrate their point. Diseases are commonly classified according to symptoms and effects. A common sense classification of diseases would look like the following:

Figure 3: Common Sense Taxonomy of Diseases
(Based on Halliday & Martin, 1993, p. 205)

On the other hand, diseases are organized according to their causes in the field of medicine. So the specialized medical classification would differ from the common sense classification as shown below:

Figure 4: Medical Taxonomy of Diseases
(Based on Halliday & Martin, 1993, p. 206)

Such a difference between scientific classification and common sense classification can create difficulties even for first language learners. For second language learners, it can be more
so, especially if the difference is across two languages. Students can have a concept in L1, but in a different taxonomy than in L2. When that is the case, transfer of this concept from L1 to L2 will be much more complicated than merely a matter of translation of labels.

Following the same line as Halliday and Martin (1993), Mohan and Van Naerssen (1997) argued against the common assumptions that language is a matter of a formal code, that speaking, listening, reading, and writing in a second language are thus a matter of applying the code, and that L2 learners’ first language development is more or less complete so that they need only to learn the second language as a new code of items of grammar and vocabulary. According to the authors, “language is a matter of meaning as well as of form. . . . Discourse does not just express meaning. Discourse creates meaning. . . . Our language development continues throughout our lives, particularly our educational lives. . . . As we acquire new areas of knowledge, we acquire new areas of language and meaning” (p. 23). From their point of view, it is not the case that L2 students just need L2 labels for conceptual knowledge they acquire in L1. It depends on what areas of knowledge students have already developed.

In sum, Cummins’ (1991b, 1992) bilingual proficiency theory is one possible explanation of the process of achieving the three goals of cooperative learning. It is by no means the only possible explanation. Alternatives may be needed to take into account transfer above the lexical level of the linguistic system and to address the issue of how meaning is created by bilingual or on-their-way-to-becoming-bilingual students’ L1 and L2 discourse in the classroom.

2.4 Rationale for the Present Study

Research literature in mainstream education indicates that cooperative learning helps improve student achievement and interracial relations. Research literature in second language
education suggests that cooperative learning provides L2 learners with more opportunities for L2 acquisition, L1 maintenance, and content knowledge learning. Cummins' (1991b, 1992) bilingual proficiency theory provides a possible theoretical explanation of how these three goals claimed for cooperative learning can work for second language learners. This section discusses the rationale for the present study, followed by a statement of the research questions.

2.4.1 Sociocultural Aspects of Cooperative Learning

It is noteworthy that much of the discussion of the beneficial effects of cooperative learning in second language classes has been either from the researcher's or the teacher's point of view. What are the L2 students' perspectives? How do they perceive cooperative tasks? How do they like their experiences of working in groups? Whereas perceptions from the researcher and the teacher are important, it is L2 students who live the experience of learning a second language in groups. Insights into what they think and believe about cooperative learning can contribute to an understanding of whether, how, and why it might benefit them affectively, cognitively, and / or linguistically.

2.4.1.1 Educational Culture

If learning--be it cooperative learning or second language learning--is something students do rather than something which is done to them, then students' beliefs and attitudes are likely to influence the implementation and success of cooperative learning in second language classrooms. Of the limited research on ESL learners' perceptions, troubling findings have been reported about students' negative attitudes toward cooperative learning. In a study on ESL students' learning style preferences, Reid (1987) reported that virtually none of her
participants chose group learning as a major learning preference. In fact, many ESL students indicated that group learning was actually a highly negative format for them.

Reid is not the only person who has reported on ESL students' negative attitudes toward cooperative learning. In the description of her students' reaction to this educational practice, Kinsella (1996) wrote:

Despite the merits of pairing and grouping strategies, my varied high school and university teaching experiences with the linguistically and culturally diverse student population of San Francisco have made me very aware that not all ESL students embrace collaborative classroom learning with the same zeal as do their instructors. In fact, some immigrant ... students are more likely to react with raised eyebrows and sighs at the prospect of a semester of ongoing participation in peer working groups. In my own classes and those of colleagues, I have observed that well-intended instructional efforts to create more democratic and varied contexts for second language use and growth can be met with reluctance and disorientation on the part of some ESL students. (p. 24)

How do these reports relate to the positive findings on cooperative learning presented in the studies reviewed earlier in this chapter? What are the reasons for ESL students' negative responses to cooperative learning? What are the possible sources for their disapproval towards this educational innovation which is supposed to be to their benefit? Research needs to be pursued to better understand how various groups of ESL students perceive cooperative learning and how their sociocultural and educational backgrounds may influence their perceptions.

The sociocultural aspects of cooperative learning in ESL classrooms have not been given sufficient attention in second language education research. In describing native English speaking students being introduced to cooperative learning in North American classrooms, Janda (1990) commented:

When collaboration enters the typical classroom ... it does not enter a vacuum where no social, linguistic or rhetorical activity has taken place previously. Even as we are persuaded that collaboration is an effective practice, we must keep in mind that traditional social and linguistic behaviors are well entrenched in the minds, behaviors, and expectations of students and teachers. (p. 292)
The entrenchment of traditional social behaviors Janda mentioned may be even more relevant for ESL students coming from a traditional educational background.

Swain and Miccoli's (1994) research documented a Japanese adult learner’s strong feelings of anxiety and depression when working in a small group in a university graduate level course in Toronto, Canada. Her educational background in Japan not only under-prepared her for participation in small group discussions, but also influenced her belief that learning is a goal-oriented individual activity and is highly dependent on the teacher. She struggled with tremendous cultural adjustments to adapt to the cooperative course format.

Many ESL students in North American schools come from educational backgrounds in which classes are largely teacher-fronted with the teacher transmitting knowledge and students recording, memorizing, and recalling what is being transmitted. Having seldom experienced other teaching approaches, they tend to take it for granted that this is the only (or as least the best) way to learn. When they work in cooperative learning settings, their past experience may come into conflict with their new experience, and their old beliefs with the beliefs strongly held by many North American educators. This sociocultural dimension of learning ESL in small groups needs to be addressed, discussed, and researched. Studies are needed to explore how students’ sociocultural backgrounds and past educational experiences contribute to the way they approach and adapt to cooperative learning in ESL classrooms.

2.4.1.2 School Culture

In recent times, there has been much discussion about school culture in the field of education in general and educational administration in particular (e.g., Maehr & Midgley, 1996; Maxwell & Thomas, 1991; Mitchell & Willower, 1992; Sashkin & Walberg, 1993; Stoll & Fink, 1996), and the concept of school culture is defined variously. According to Maehr and
Buck (1993), “most uses of the term ‘school culture’ imply that it is a cause of action. . . . School culture is the motivation and performance of major participants in the organization” (p. 42). In the view of these scholars, school culture embraces perceptions, thoughts, and beliefs held by individuals associated with the school; each school has a culture of its own; whereas all schools claim to be about student learning, they emphasize different purposes and goals, and vary in the way they construct their mission; the nature of a school culture determines how, what, and whether students learn.

The discussion about school culture has generated several models, among which is the one suggested by Werner (1991). Werner’s model of school culture consists of three elements: core pedagogy, structures, and norms. Core pedagogy refers to curriculum goals set up by the ministry of education, the school district, and the school, textbooks, and teachers’ beliefs about teaching and learning (for instance, teacher talk, seatwork assignment, or large group instruction). Structures refer to the way schools are organized and contextual features of classrooms, for example, time tables, length of class time, classroom space, students sitting in circles or in rows, teachers having offices in classrooms or having another office, and so forth. Norms refer to expectations used by teachers to guide and evaluate their work and relationships, such as how one behaves as a teacher, how one behaves toward students, and whether to teach autonomously or collectively. These three elements make up a school culture. They are not separate from one another; rather, they impose, constrain, and change and are imposed, constrained, and changed by one another.

Werner’s notion of school culture finds support in Lundgren’s (1981) discussion of school behaviors. Lundgren categorized school behaviors into three systems, namely the goal system, the frame system, and the rule system. The goal system is linked to the curriculum; it governs the educational process. The frame system is linked to administrative apparatus; it
constrains the educational process. The rule system is linked to judicial apparatus; it regulates the educational process. The following is a quotation from Lundgren that describes in some detail what he meant by each of the three systems:

The goal system includes the concrete consequences of a specific curriculum, that is, the syllabus, recommendations for teaching, teaching materials, textbooks, and so on. The frame system includes everything that constrains the teaching process that is determined outside teaching. This would include physical equipment such as rooms, organisational arrangements such as size of school and class, ability grouping, time available for teaching, and so forth. The rule system includes regulations of a legislative nature concerning the duties of the teacher such as marking systems and rules concerning the employment of teachers such as the required number of lessons per week and demands of competency. (p. 205)

In her ethnographic research on transformations of educational discourse in English immersion classrooms at Hungarian secondary schools, Duff (1995) conceived of felelés (recitation), a traditional and very demanding genre of oral assessment, as an activity located in wider social and historical contexts. The social and historical contexts influenced the theory and practice of the activity felelés. If Duff’s conception of activity being part of a larger context is applied to cooperative learning, then cooperative learning may be viewed as part of a school culture, and students’ reflections and actions on cooperative learning as being influenced by it. The possible influence of the school culture Chinese immigrant students came from on their reflections and actions on cooperative learning in a Canadian school will be discussed in more detail in chapter 4 in relation to core pedagogy (e.g., Gow, Balla, Kember, & Hau, 1996; Ho, 1997; Mao & Bourgeault, 1991; Ogbu, 1995; Pratt, 1992), structures (e.g., Chyu & Smith, 1991; Dunkelblau, 1996; Hudson-Ross & Dong, 1990), and norms (e.g., Cortazzi & Jin, 1996; Tsui, 1996).
2.4.2 Dilemmatic Aspects of Cooperative Learning

Most of the studies reviewed in this chapter do not explore cooperative learning from a dilemmatic perspective, one which would question assumptions such as the following: cooperative learning either works or does not work; students either like cooperative learning or do not like it; consistency of findings is to be sought and inconsistency is to be avoided; cooperative learning is to be treated as a value free, content free, universal form of technique and once implemented correctly, it will work and solve problems; students have a complete, unified system of beliefs, which informs them how to act, feel, and think.

However, according to Billig et al. (1988), “ordinary people do not necessarily have simple views about their social worlds and about their places in these worlds. Instead, their thinking is frequently characterized by the presence of opposing themes” (p. 143). What is more, the dilemmatic aspects “do not only concern contrary ways of talking about the world; they exist in practice as well as in discourse. Above all, the dilemmatic aspects can give rise to actual dilemmas in which choices have to be made” (p. 144). Often, choices are difficult to make, not so much because the alternatives appear equally unfavorable, but because “either way, the dilemma still remains a dilemma” (p. 9).

In a study on academic discourse in the departmental colloquium at higher educational institutions, Tracy (1997) explored the web of problems academic groups faced, the discursive practices used, and the ideals academics had about how they should talk. Her findings demonstrated that the academic colloquium is a dilemmatic situation involving multiple dilemmas at two levels, namely, with participants as individuals versus as a group. Dilemmas for the group include equality versus expertise, critique in terms of idea merit versus presenter experience, participation guided by knowledgeability versus willingness to take risks, and playful climate versus serious climate. For individuals in the presenter role, they may confront
dilemmas such as avoiding looking foolish versus provoking interest, linguistic elegance versus interactional naturalness, theoretical interest versus practical applicability, and positioning self in relation to ideas versus neutrality in relation to ideas. For individuals in the discussant role, they may encounter dilemmas such as whether to display intellectual ability versus avoiding self-aggrandizing.

Considering the three goals claimed for cooperative learning, the research literature has made the claims, but has not discussed the consequences of those claims. It has not attempted to resolve the issues which arise when those goals are taken together. It is not clear whether L2 students can achieve the goals all at once, all of the time. There is limited amount of time for each class. If students spend more time doing one thing, they have less time left for another. How do they balance between developing L2 and maintaining L1? How do they balance between developing academic language in L2 and in L1? How do they balance between learning a second language and learning content knowledge? Studies are needed to examine, discuss, and work with the dilemmatic aspect of cooperative learning in second language classrooms.

2.4.3 Research Questions

The present study does not take students as "information-processing automata, the behaviors of which are the effects of causal processes" (Harre, 1993, p. 11). On the contrary, it takes students as human agents acting intentionally according to local norms to achieve certain ends (Harre, 1993; Harre, Clarke, & Carlo, 1985; Secord, 1990). It does not look at how cooperative learning works as a causal process; rather, it attempts to understand how students live their everyday experiences of cooperative learning in ESL classes, how they make
meaning of their everyday living experiences, and how their educational and cultural history influences their present living experiences and their meaning-making processes.

This study asks whether cooperative learning is a value laden, conflict driven, contextually specific form of experience. It asks whether cooperative learning is a dilemmatic situation which involves tensions and contradictions, a dilemmatic situation in which students' everyday practice and their reflections about their everyday practice may be inconsistent and may contain contrary themes, and a dilemmatic situation in which students' educational and cultural history may add to the complexity of the choices they have to make.

More specifically, the present study attempts to explore the following two issues of cooperative learning in second language education: 1) the issue of whether cooperative learning poses dilemmas for second language learners, and, more specifically, 2) the issue of whether students face dilemmas when simultaneously pursuing all three goals claimed for cooperative learning for second language learners: developing academic language proficiency in L2, maintaining L1, and acquiring content knowledge.

The purpose of the present study is twofold. At a broad level, it aims to find out how ESL students, specifically recent Chinese immigrant students, perceive cooperative learning in ESL classes and how they do cooperative learning in groups. At a detailed level, it aims to find out what types of L1 and L2 discourse are produced in cooperative groups; how L1 use might relate to L2 development; and how language learning might be integrated with content learning. The specific research questions are:

1. What are the dilemmas, if any, that Chinese immigrant students encounter in their living experiences of cooperative learning in ESL classes in general?
2. What are the dilemmas, if any, that Chinese immigrant students encounter regarding
the cooperative learning goals of developing academic language proficiency in L2,
maintaining L1, and acquiring content knowledge?
CHAPTER 3:
METHODS OF INQUIRY

This chapter discusses the research methodology of the present study. Section 3.1 characterizes the design of this research and explains why the research design was selected. Section 3.2 describes how the research design was implemented in the chosen setting, including the sampling logic and the focus of data-collection efforts. Section 3.3 specifies the methods used to analyze the data. Section 3.4 explains how data were presented in the later chapters of this work. Section 3.5 justifies the trustworthiness of this research.

3.1 Research Design

This study draws on qualitative research methods and discourse analysis methods, and combines the two different traditions by investigating cooperative learning as a language socialization activity. Figure 5 below illustrates graphically the research design of the present study.

Figure 5: Research Design of This Study

Although widely used, qualitative research remains a discipline without a unified definition. Different people define it differently. This study follows Denzin and Lincoln’s (1994) general definition and sees qualitative research as a field of inquiry that studies things
“in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them” (p. 2).

Discourse analysis is a diverse area in linguistics. There are many meanings of discourse and as many approaches to discourse analysis. This study takes a functional perspective and defines discourse as a system through which particular functions are realized, and discourse analysis as dealing with such tasks as identifying and analyzing discourse produced by people for certain purposes, interpreting its social, cultural, and personal meanings, and justifying interpretations of these meanings for the participants involved (Schiffrin, 1994).

The term activity has been used in a variety of different ways in the research literature. The present study adapts Ochs’ (1988) definition and takes activity to be “both a behavioral unit, in the sense of a sequence of actions associated with particular motivations and goals . . ., and a process, in the sense of praxis” (p. 14).

3.1.1 Cooperative Learning as a Language Socialization Activity

The concept of activity is central to language socialization theory in second language education. In Ochs’ (1988) model of language socialization (see Figure 6 below), “activity mediates linguistic and sociocultural knowledge” and “knowledge and activity impact one another” (p. 15) in that “sociocultural and linguistic knowledge structures activity, and activity creates (in the case of the novice / acquirer) and recreates (in the case of the member / competent language user) knowledge in both of these domains” (p. 16).

Figure 6: Ochs’ Model of Language Socialization (Based on Ochs, 1988, p. 15)

Linguistic knowledge ◄ — ► Activity ◄ — ► Sociocultural knowledge
Taking a similar language socialization position, Mohan (1986) argued that "the concept of an activity is so central to education that education can be defined in terms of activities. Across the curriculum we find a vast array of activities: designing scientific experiments, composing music, analyzing historical events, interpreting literature, and so on" (p. 44). To this list of educational activities, Mohan (1991) later on added cooperative learning, activities which two or more students work on together. Following John Dewey (1916), who defined education as the initiation of the learner into the activities of society, Mohan (1986) considered the central role of language in education to be the development of the learner's understanding of an activity.

Activity is taken to be a social unit for inquiry in social science research. It is typically located within larger units, and often itself contains smaller units. In his book, Participant Observation, Spradley (1980) exhibited a diagram (see Figure 7 below) that shows the scope of research ranging from micro-ethnography to macro-ethnography, and the units of study ranging from a social situation (which in this work will be termed an activity) to the social institution to the community to the complex society.

Figure 7: Scope of Research and Units of Study
(Based on Spradley, 1980, p. 30)

<table>
<thead>
<tr>
<th>Scope of research</th>
<th>Social units studied</th>
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<tbody>
<tr>
<td>Macro-Ethnography</td>
<td>Complex society</td>
</tr>
<tr>
<td></td>
<td>Multiple communities</td>
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<tr>
<td></td>
<td>A single community</td>
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<td>Multiple social institutions</td>
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<td></td>
<td>A single social institution</td>
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<tr>
<td></td>
<td>Multiple social situations</td>
</tr>
<tr>
<td>Micro-Ethnography</td>
<td>A single social situation</td>
</tr>
</tbody>
</table>
3.1.2 Activity as Social Action: Theoretical and Practical Aspects

The notion of action is crucial in the study of activity. According to Harré et al. (1985), action is "behavior that somebody intended" (p. 83). To put it in another way, human beings are not simply reacting to external conditions. They are active agents capable of planning and evaluating as well as reacting. Calling for the need to analyze action as meaningful, Harré et al. presented a discussion of two aspects of action. One aspect is the interpretation of actions as acts. Action is deliberate and intended behavior. However, "it is impossible to decide what it means independently of the culture in which it exists" (p. 83). Action needs to be culturally interpreted before it can be meaningful. When it is interpreted culturally, it becomes an act. "It is as acts that social actions are effective, so any methodology must lead to the discovery of acts" (p. 78). The same action can mean different things as different acts. Also, behaviorally diverse actions can mean the same thing as the same act. To use the examples provided by Harré et al., the hand gesture of fingers rapidly opening and closing on the palm (an action) means "farewell" in Italy (an act), but "speak your own mind" in the far west of the United States (an act). In a similar fashion, shaking hands in North America (an action) and rubbing noses in the south Pacific (an action) both mean greeting (an act).

The other aspect of action is resources. Harré et al. (1985) defined resources as "the body of knowledge of legitimate projects, rules and conventions appropriate for persons of our sort in specific social situations" (p. 85). By drawing a distinction between resources and acts, Harré et al. assumed a sort of division between theory and practice. According to Mautner's (1996) A Dictionary of Philosophy, the English word practical comes from the Greek word praktikos, which means "pertaining to action" (p. 333), and the English word theory comes from the Greek word theoria, which means "viewing; speculation; contemplation" (p. 426). More specifically, Mautner referred to theory as "a set of propositions which provides
principles of analysis or explanation of a subject matter” (p. 426) and argued that even a single proposition can be called a theory because:

Since the 1980s, ‘theory’ is used in some academic contexts... not as a general concept, but for a particular kind of theory... usually with a tendency towards relativism in respect of knowledge and interpretation. (p. 426)

The difference between theory and practice, as Mautner saw it, is that “the practical is whatever relates to action, in contrast to the theoretical which relates to thought” (p. 333, emphasis in the original text). He further elaborated that:

The contrasts theory / practice... etc. are often conceived of as a contrast between passivity and activity: the theoretical knower is a passive contemplator, a recipient of food for thought; the practical agent is an active doer. (p. 426)

The relation between resources and acts within action suggested by Harré et al. is demonstrated in Figure 8. The division between theory and practice in an activity also arises in Spradley’s (1980) discussion on ethnographic research. Spradley distinguished what people do from what people know. He spoke of what people do as cultural behavior and what people know as cultural knowledge. Cultural behavior can be seen easily, whereas cultural knowledge is often hidden from view. Although cultural knowledge is beneath the surface, Spradley considered it of fundamental importance because it “serves as a guide for acting and for interpreting our experience” (p. 9). As ethnography “is the study of both explicit and tacit cultural knowledge” (p. 8), the ethnographer’s task is, therefore, to observe behavior but go beyond it to inquire about the meaning of that behavior: how it is interpreted through cultural knowledge.

Figure 8: Two Levels of an Activity

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</thead>
<tbody>
<tr>
<td>Theory</td>
<td>Resources</td>
<td>Cultural knowledge</td>
<td>Background knowledge</td>
</tr>
<tr>
<td>Practice</td>
<td>Acts</td>
<td>Cultural behavior</td>
<td>Action situation</td>
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The two levels of an activity come up most explicitly in Mohan’s (1986) work on integrating language teaching with content teaching. According to Mohan, “all activities have a practical and theoretical aspect” (p. 43). He explained that an activity is not just defined as action, but as a combination of action and theoretical understanding. “An activity is a mode of thought and conduct. An activity has a pattern of action . . . and involves background knowledge” (p. vi). To put it more simply, an activity has a theory and a practice associated with it. Mohan emphasized the relevance of this theory-practice dimension of an activity to education. He said, “both aspects are important in teaching. Without the practical, students cannot apply what they know; without the theoretical, students cannot understand what they are doing, nor transfer what they know” (p. 43).

3.1.3 Activity as Discourse: Reflection Discourse and Action Discourse

The notion of activity as discourse derives from Harré and Gillett (1994). In their book *The Discursive Mind*, Harré and Gillett presented the argument that understanding and the phenomena of meaning or intentionality in general can only be approached by looking at what people do with language. Conversation, or talk, is intentional use of language. For Harré and Gillett, almost any intentional use of language is a part of discourse. They claimed that analytic methods must cover linguistic exchanges to understand the dynamics of social life. That is to say, conversations are, or should be, the focus of empirical study since it is through them that social status is created, attitudes displayed, and memories authenticated.

Spradley (1979, 1980) also laid much emphasis upon discourse. His 1979 book, *The Ethnographic Interview*, focused exclusively on making cultural inferences from what people say. He claimed that language is an essential part of all ethnographic field work. “Both explicit and tacit cultural knowledge are revealed through speech, whether in casual comments or in
lengthy interviews. Because language is the primary means for transmitting culture from one
generation to the next, much of any culture is encoded in linguistic form” (1980, p. 12). He
suggested that every ethnographer make use of what people say in seeking to describe their
culture because “culture, as a shared system of meanings, is learned, revised, maintained, and
defined in the context of people interacting” (1980, p. 9).

To study the theoretical and practical aspects of action, Harré (1993) distinguished
discourse as being of two major types. The first type deals with the practical aspect of action. It
is discourse acts with which social acts are accomplished. Discourse acts are “language in use
as the accomplishments of acts or as attempts at their accomplishments” (Harré & Gillett,
1994, p. 32). To put it in a simple way, they are language for doing action. The second type of
discourse deals with the theoretical aspect of action. It is accounts with which actors theorize
about those social acts. Accounts provide explicit rules and conventions for acting correctly.
They are language for talking about action. Figure 9 summarizes major types of discourse
central to Harré’s discussion of research on action.

Figure 9: Two Types of Discourse in an Activity

<table>
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<tbody>
<tr>
<td>Theory</td>
<td>Accounts</td>
<td>Reflection discourse</td>
</tr>
<tr>
<td>Practice</td>
<td>Discourse acts</td>
<td>Action discourse</td>
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Mohan (1987) not only argued that an activity has a theory and a practice, but claimed
that an activity has its theory texts and practical texts. Theory texts explain the rules of an
activity, often so that a learner can understand and participate in actual instances, while
practical texts enact an activity and guide it in operation. To use Mohan’s example, the
parliamentary procedure text is a theory text. It explains motions, meeting procedures and
voting. Reading about parliamentary procedure helps participation in meetings. The verbal
interaction of participants during a meeting is a practical text, a meeting text. It embodies and
enacts a motion, a procedure and a vote. The major difference between theory texts and practical texts is, as Mohan pointed out, that “generally we might expect theory texts to be essentially universal and timeless and texts of practice to be essentially particular and ‘timed’” (p. 519). In their more recent work, Mohan, Early, Guo, Huxur-Beckett, Liang, Salzberg, and Wu (1998) also referred to theory texts as reflection discourse and to practical texts as action discourse.

3.1.4 Connecting Qualitative Research and Discourse Analysis

This study attempts to explore how Chinese immigrant students conceive of and engage in cooperative learning in the ESL classroom, and how their perceptions and actions are related. In contrast to quantitative research that emphasizes the measurement and analysis of causal relationship between variables, the current study draws on the qualitative research tradition, which stresses processes and meanings that are not necessarily measured in terms of quantity or frequency. As Denzin and Lincoln (1994) pointed out, qualitative research places great emphasis on “the socially constructed nature of reality . . . and the situational constraints that shape inquiry” (p. 4). In order to find out how social experience is created and given meaning, qualitative research involves a naturalistic approach and studies things in their real and natural contexts. Instead of privileging one single method over any other, it relies on the use of several kinds of interconnected methods, attempting to secure an in-depth understanding of the phenomenon in question. Investigation in real and natural situations and multiple research methods can be described as two characteristics of qualitative research. As Denzin and Lincoln put it: “Qualitative research is multimethod in its focus, involving an interpretive, naturalistic approach to its subject matter” (p. 2).
The present study also draws on the discourse analysis tradition, particularly on the Systemic Functional Linguistics (SFL) approach (e.g., Derewianka, 1991, 1992, 1995; Eggins, 1994; Halliday, 1985, 1994; Martin, 1992) to discourse analysis, which focuses on the analysis of authentic products of everyday social interaction, or texts in SFL terms, in relation to the situational and cultural context in which they are negotiated. In other words, in its analysis of texts, SFL focuses not just on language, but on language use in context, exploring both what dimensions, and in what ways, context influences language. Its purpose is, as Halliday (1994) stated: “to understand . . . why a text means what it does, and why it is valued as it is” (p. xxix).

Related to SFL is the Knowledge Structure Analysis (KSA) proposed by Mohan (1986, 1987, 1989, 1991, 1995). KSA and SFL both belong to the functionalist paradigm in linguistics. While SFL work on genre and register focuses on text in relation to its cultural and social context, KSA focuses on activity, based on the assumption that there are various texts within an activity. In other words, SFL work on genre and register starts from a text, and considers in what context it can occur; KSA starts from an activity, sees it as a context for discourse, and considers what texts can occur in it. SFL work on genre and register does not explicitly recognize the two levels of an activity. In SFL work on genre and register, the theory of an activity is not clearly identified. Any cultural knowledge of the activity is referred to the general heading of context of culture, i.e., general cultural knowledge applied to the whole society. Such work does not explicitly acknowledge the culture of a particular activity. By contrast, KSA assumes a twofold structure in an activity and regards any activity as having a theory and a practice.

From what has been discussed above, it seems that there are some natural relationships between qualitative research methods and discourse analysis methods. Linguists work with
words; qualitative researchers, in particular anthropologists and ethnographers, also work with words. Qualitative researchers who wish to capitalize on the data of discourse ask such questions as how discourse provides evidence of a social context; linguists, specifically SFL linguists, ask such questions as how discourse is dependent on its social context. Linguists need to collect authentic products of everyday social interaction; qualitative research methods provide examples of appropriate techniques. Qualitative researchers need to understand the data of discourse they work with and the inferences that can be drawn from that data; discourse analysis methods provide appropriate tools. Researchers can enrich their methodology by bringing the two traditions together.

Based on the above considerations, the current study takes cooperative learning as a language socialization activity, a social unit for inquiry. It employs qualitative research methods to collect authentic discourse data of cooperative learning at both the theory and the practice levels. It applies discourse analysis methods, drawing especially on SFL and KSA, to understand the data and draw inferences about Chinese immigrant students' reflections of cooperative learning and their actions during group work in ESL classes. In other words, it uses discourse analysis methods to interpret the discourse evidence of cooperative learning and uses qualitative research methods to gather accounts of the context of cooperative learning discourse. Qualitative research methods plus discourse analysis methods may thus provide a greater level of awareness of the research problems of this study.

3.2 Research Methods

The process of deciding which procedures to use is a funneling process, a process of developing understanding of the research issues (Duff, 1995; Watson-Gegeo, 1988). This study started from more general issues and moved to more specific ones, from the macro level to the
micro level. The researcher began with some broad research topics. During the process of the study, the research questions were formulated and refined along with the development of the researcher's understanding of the research setting and of the direction of inquiry. The study was qualitative in nature, but included some quantification as part of the larger strategy of zooming in. It focused on students, but included teachers to provide a whole picture. It sought to gather information at both levels of an activity: reflection discourse of cooperative learning at the theory level, and action discourse of cooperative learning at the practice level.

3.2.1 Sampling Procedures

The procedures for selecting a site and participants for this study can be described as purposeful sampling in that the school, the students, and the teachers selected were expected to be information-rich and likely to yield significant insights about the phenomenon of interest. Specifically, criterion sampling (Gall, Borg, & Gall, 1996) was involved to select a site and participants that would satisfy important criteria with respect to the purpose of this study.

3.2.1.1 Research Site

This study was conducted in Johnson Secondary School (a pseudonym) on the west side of Vancouver, British Columbia, Canada. It was chosen to be the research site of this study for two important reasons. Number one, it had an ESL program with a high percentage of Chinese speakers. Number two, the ESL program included cooperative learning as one of its instructional strategies.

As reported by Vancouver School Board in January 1994, 38% of the school population spoke English as their home language, while the remaining 62% of the students spoke a language other than English at home. Some of the students were new immigrants to Canada.
who had been in this country for lengths of time ranging from two weeks to one and half years. At the time of this study, the school had nine classes of such recent immigrant ESL students, of whom many came from Taiwan and Hong Kong, and a few came from the PRC.

The nine ESL classes at the school were not grouped according to language proficiency, but instead, on a multi-level basis. Multi-level here refers to different levels of English proficiency and grades. In this multi-level grouping, students were randomly assigned to ESL courses (except ESL Reading and ESL Literature) by a school computer. The classes, therefore, had a wide range of language abilities and ages. The ESL department of the school believed that such multi-level groupings enabled a cooperative learning environment where less advanced students did not feel defeated by not being placed in a less progressive situation, and more advanced students gained enrichment by helping less advanced students.

3.2.1.2 Participants

The student participants of this study were selected based on the following criteria. First, they were Chinese immigrant students in Johnson Secondary School who had been in Canada for no more than three years so that their past educational experience was still freshly remembered and their present educational experience was still very new. Second, these Chinese immigrant students were taking at least one ESL course in the ESL program to be registered as ESL students at the school, and their English was still at relative beginning levels. Third, they were of different ages and genders, in different grades, and had different English proficiency levels.

Of the 49 Chinese students who participated in the interviews, 28 (57%) were male and 21 (43%) were female. The age of the students ranged from 13 to 18 years, with an average age of 15. At the time of the study, 27 interviewees (55%) had been in Canadian schools for less
than a year, 19 (39%) for less than two years, and 3 (6%) for less than three years. Twenty-four (49%) of the interviewees were taking only ESL courses except math and physical education, which were offered to all ESL students as soon as they arrived at the school (it should be noted that these ESL courses included a number of ESL content courses such as ESL Social Studies); 23 (47%) were taking some ESL courses and some mainstream courses such as science and languages (i.e., French, Japanese, Spanish, etc.); the remaining two (4%) were taking some ESL courses and some transitional courses (e.g., social studies and English). Thirty interviewees (61%) spoke Mandarin at home and the rest 19 (39%) spoke Cantonese at home.

The number of students being observed in this study varied from stage to stage. At the initial stage, all students from the nine ESL classes were observed. There were about 180 students in total with 20 students in each class, including those from countries or places other than Taiwan, Hong Kong, and the PRC. As the research focus narrowed, 40 students in two ESL classes remained as participants at the next stage of observation. At the final stage, 160 students in eight ESL classes were selected for observation, but the focus was on the 120 or so Chinese immigrant students.

The teacher participants in this study were nine ESL teachers working in the ESL Department at Johnson Secondary School. They all agreed to be observed while teaching and were informed from the very beginning that the research focus was how students learned rather than how teachers taught.

One of the main ethical questions posed by qualitative educational research is the researcher’s responsibilities towards the participants. In the current study, the fundamental responsibility of the researcher was to prevent harm (such as embarrassment, administrative punishment) coming to the Chinese immigrant students and ESL teachers through the processes by which they were studied. To reduce the risk of harm, the researcher followed the
principles of confidentiality and anonymity (Hitchcock & Hughes, 1995). She maintained confidentiality and anonymity by not revealing the individual identities of the students and teachers who participated in this study. She negotiated with the participants about who would have access to the interview and observation tapes once recorded. She also assured the participants that pseudonyms would be used in any subsequent written materials.

3.2.2 Data Collection Procedures

This study started in February 1994 and ended two years later in February 1996. It used multiple research methods, or triangulation, for data collection, the reason being that “no single method can grasp the subtle variations in ongoing human experience” (Denzin and Lincoln, 1994, p. 12). It relied on the use of several interconnected procedures to provide discourse data (written or oral) about Chinese immigrant students’ and their ESL teachers’ theory of cooperative learning as well as their practice during cooperative learning tasks. Figure 10 below shows the multiple data collection procedures that were used in the present study and the focus of these procedures.

Figure 10: Multiple Data Collection Procedures Used in This Study

3.2.2.1 Documents

“Documents are mainly written texts which relate to some aspect of the social world” (Hitchcock & Hughes, 1995, p. 212). They are valuable sources of “unwitting testimony” (Scott, 1990, p. 13), revealing information about values and beliefs not always directly
intended in the written texts. This study used documents as a source of data in conjunction with other sources. Various existing official documents relating to ESL policy issues produced within the school, for example, newsletters, guidelines, and handbooks issued to ESL students and parents, that were readily accessible were collected throughout the study to provide written discourse evidence of how teachers perceived cooperative learning in the ESL classroom; in other words, documents helped bring to the surface the teachers' theory of this educational innovation in an ESL context.

3.2.2.2 Interviews

Interviews, in particular ethnographic interviews, are described as “one strategy for getting people to talk about what they know” (Spradley, 1979, p. 9). They are often used to investigate cultural knowledge, or the theory of an activity, since cultural knowledge is sometimes communicated by language in such a manner that it can be studied through the way people talk.

Although informal interviews with students and teachers in the form of friendly conversation (Spradley, 1979) were carried out in class, during breaks, and at lunch time throughout the study, formal interviews were conducted during a one-and-a-half month period between May and June in 1994 to provide oral discourse evidence of Chinese immigrant students’ “theories” of cooperative learning; in other words, these interviews helped elicit how they understood this instructional strategy in ESL classes. Specifically, standardized interviews (McMillan & Schumacher, 1993, p. 42) were carried out, during which all 49 participants were interviewed individually and were asked the same set of preestablished questions in the same order to reduce possible interviewer effects and bias. The interviewees were given the choice of responding in either Mandarin, Cantonese, or English so that they could express themselves
freely in whichever language they felt comfortable with. Of the 49 interviewees, 22 (45%) responded in English, 25 (51%) in Mandarin, and 2 (4%) in Cantonese. Two students switched between languages while being interviewed. Each interview lasted about 30 minutes and was recorded with a cassette recorder.

The 28 relatively open-ended interview questions (see Appendix A) were developed to include three categories (McMillan & Schumacher, 1993, p. 428): (1) background / demographic questions (Questions 1-5) that aimed to elicit the participants’ descriptions of themselves (routine information on age, gender, first language, how long in the ESL program, current courses, etc.) to aid the researcher in identifying and locating the participants in relation to other ESL students; (2) experience / behavior questions (Questions 6-8, 11, 12, 16-19) that were intended to draw out participants’ descriptions of their experiences, behaviors, actions during the researcher’s absence, for example, their use of mother tongue during group work; and (3) opinion / value questions (Questions 9, 10, 13-15, 20-28) that sought to obtain what the participants thought about their experiences in the ESL program, which would reveal their intentions, goals, and values, for example, their perceptions of cooperative learning in ESL classes.

The interview context called for the researcher to play a “neutral” role by establishing “balanced rapport” (Fontana & Frey, 1994, p. 364), in other words, being casual and friendly on one hand and directive and impersonal on the other, and by not interjecting her opinions of the interviewees’ responses. However, the researcher was aware that the interviews took place in a social interaction context and were influenced by that context. She understood that the standardized interviewing style would possibly elicit rational responses, or “espoused theories” (Senge, 1990, p. 175), in other words, what Chinese immigrant students thought was appropriate to say about cooperative learning. To obtain Chinese students’ “theory in use”
(Senge, 1990, p. 175) about cooperative learning, what they actually did in cooperative groups needed to be observed.

3.2.2.3 Observations

Observations are generally used by researchers to investigate cultural behavior, or in other words, the practice of an activity. As a large part of any culture consists of tacit knowledge, informants always know things they cannot easily talk about or express in a direct way. Researchers, especially ethnographers, must then make inferences about what people know by observing what they do (cultural behavior) and things they make and use (cultural artifacts), as well as by listening to what they say (speech messages) (Spradley, 1980).

In this study, observations in real and natural classroom settings were conducted to find out about Chinese immigrant students’ and their ESL teachers’ practice of cooperative learning, in other words, how they did cooperative learning in ESL classes. They proceeded in three stages as suggested by Spradley (1980): descriptive, focused, and selective (see Figure 11). The researcher began with wide-focused descriptive observations of ESL classes, aiming to get an overview of the ESL classroom situation within which cooperative learning took place. She observed nine ESL classes (including ESL Home Economics, ESL Literature, ESL Science, ESL Social Studies, ESL Oral, ESL Reading, and ESL Writing) for 9.45 hours in March 1994. Next, the researcher narrowed her lens and began to make focused observations of cooperative learning tasks in ESL classes. This time, she observed an ESL Science class and an ESL Social Studies class for 24.55 hours between May and June in 1994. Finally, the researcher narrowed her focus still further to make selective observations of cooperative learning groups each having two or more Chinese immigrant students. She observed eight ESL classes (including ESL Home Studies, ESL Literature, ESL Science, ESL Social Studies, ESL
Oral, and ESL Writing) for 85.35 hours between April and June 1995. Altogether, 120.15 hours of observations were carried out in natural classroom settings.

Figure 11: Stages of Observation
(Adapted From Spradley, 1980, p. 34)
(The broken lines indicate that the stages continue until the end of the research.)

At all stages, the researcher made field notes of what was happening during the observations. At the stage of selective observations, Chinese immigrant students’ interactions during cooperative learning were recorded using audio technology. Altogether, 30 hours of tapes were used for audio recording students’ group interactions. These recorded spontaneous conversations formed an important part of the data corpus of the current study. They provided oral discourse evidence of how Chinese immigrant students actually did cooperative learning in ESL classes.

Throughout the entire process of observation, the researcher of this study did not intend to take any of the four research roles suggested by Gold (1958) (i.e., the complete participant, the participant-as-observer, the observer-as-participant, and the complete observer) which seek to balance involvement with detachment, familiarity with strangeness, and closeness with distance. Instead, she assumed a peripheral membership role (Adler & Adler, 1994) as she believed that an insider's perspective was vital to forming an accurate appraisal of participants' life in the ESL classroom. She occasionally took part in classroom activities in the role of a student, such as learning to play a musical instrument, acting in a drama, providing ideas for group tasks, and so forth. When the teacher was occupied with some students in the class, she
offered to help others who needed assistance at the same time. She interacted closely enough with the participants to establish an insider’s identity, without participating in teaching or learning activities constituting the core of group membership.

3.3 Data Analysis

Drawing on the SFL and the KSA approaches to discourse analysis, this study focused on the analysis of Chinese immigrant students’ reflection and action discourse in relation to its context of cooperative learning as a language socialization activity. It adopted multiple data analysis methods to better understand how Chinese students made meaning of their living experiences of this educational innovation in ESL classes. These data analysis methods are: the inductive analysis to process Chinese students’ reflection discourse of cooperative learning collected through interviews, and the ethnographic microanalysis, the code-switching analysis, and the knowledge structure analysis to process Chinese students’ action discourse of cooperative learning, or in other words, their group interactions, collected through selective observation. In the analysis of Chinese students’ group interactions, there was overlapping use of transcripts. Many strips of discourse data were cross-analyzed with the ethnographic microanalysis and the code-switching analysis. Some strips of discourse data were cross-analyzed with the code-switching analysis and the knowledge structure analysis. Figure 12 illustrates the types of data collected and data analysis methods used to process them in this study.

3.3.1 Inductive Analysis

Interview data were analyzed using the inductive analysis strategy (McMillan & Schumacher, 1993) to reveal how Chinese immigrant students perceived cooperative learning
Figure 12: Data Analysis Methods Used in This Study

Data analysis

- Interview data
  - Transcribe entirely
    - Inductive analysis
      - Likes & dislikes about working in groups
      - Reasons for likes and dislikes
      - Circumstances for L1 use
      - Reasons for L1 use
      - Comments on L2 development

- Observation data
  - Transcribe
    - (Group work, group interaction)
      - (Utterances in Chinese transcribed in Chinese characters, with English translation)
  - Not transcribe
    - (Individual work, teacher instruction)

- Ethnographic microanalysis
  - Cooperation
  - Non-cooperation
  - Mis-cooperation

- Code-switching analysis
  - For ideational functions
    - Informing function
    - Reasoning function
  - For interpersonal functions
    - Social needs
    - Controlling

- Knowledge structure analysis
  - Classification
in the ESL classroom. Methodologically, the audiotapes of interviews were transcribed in their entirety for analysis. The transcripts of each interview were sorted out in the sequence of the interview questions. Responses by all interviewees were grouped into positive and negative responses. The reasons for these responses were categorized by constant comparison. Each category was a cluster of meaning and the names for the categories came from the data. That is to say, they were words used by the participants during the interviews. Patterns, themes, and categories of analysis emerged from the data with regard to Chinese immigrant students' perceptions of cooperative learning; for instance, that which they liked and disliked about working in small groups, and the reasons for their likes and dislikes, were constantly compared to determine their representativeness.

3.3.2 Ethnographic Microanalysis

Student group interactions obtained through audio recording during selective observations were first reviewed at regular speed, without stopping at any point along the way. The researcher listened to the tapes, and at the same time wrote notes that described the tasks on the tapes, tasks which included teacher instruction, group work, and individual work. The appropriate locations in time of major segments of discourse of different tasks were noted. The researcher played the tapes back and forth to transcribe in detail those major segments of discourse in which Chinese students worked in groups and interacted with one another. Utterances made in Chinese were transcribed in Chinese characters with the English translation. The entire transcripts were then processed using the ethnographic microanalysis procedure described by Erickson (1992) to see how Chinese immigrant students were cooperating or not cooperating during group interactions. The strips of sequentially connected discourse that showed the contributions of various
participants to cooperation or otherwise were marked and compared to decide their representativeness.

3.3.3 Code-Switching Analysis

Next, the code-switching analysis procedure was applied to the entire transcripts. The analytic approach adopted to examine Chinese students’ code-switching between English and Chinese during group interactions was sequential (Auer, 1984, 1988, 1995) as opposed to classificatory. The researcher took accounts of the sequential flow of L1 and L2 discourse, in other words, what went before and after particular utterances, and gave a prominent role to the context of L1 and L2 discourse data in the process of analysis. Procedurally, all the transcripts were checked for switching between English and Chinese. Code-switching between the two languages was then categorized according to four functional analytical categories described by Staab (1986). Staab examined small group discussions in elementary school classrooms by students who were native English speakers with a view to assessing the quality of their academic thinking and discourse. She used five language functions for data analysis, namely asserting and maintaining social needs (hereafter referred to as social needs), controlling, projecting, informing, and forecasting / reasoning (hereafter referred to as reasoning), and considered the reasoning function to be particularly important in determining the quality of academic discourse.

Staab’s (1986) five language functions were influenced by Halliday’s (1973) dichotomy of ideational and interpersonal language functions. In his early book, *Explorations in the Functions of Language*, Halliday (1973) distinguished two language functions. The ideational language function is concerned with the content of language; its function is to express “our experience, both of the external world and of the inner world of our own consciousness—together with what is perhaps a separate subcomponent expressing certain basic logical relationships” (p.
The interpersonal language function refers to the non-ideational elements in language use. It is “language as the mediator of role, including all that may be understood by the expression of our own personalities and personal feelings on the one hand, and forms of interaction and social interplay with other participants in the communication situation on the other hand” (p. 66).

Regarding Staab’s five language functions, social needs, controlling, and projecting fall into Halliday’s category of interpersonal while informing and reasoning fall into Halliday’s category of ideational. This relation between Halliday’s and Staab’s categories is shown in Figure 13 as are the operational definitions (i.e., subfunctions) of Staab’s five language functions. For example utterances of each of the subfunctions, see Staab (1986, pp. 112-114).

In Staab’s (1986) study, each utterance in the discourse data was coded according to one of the five language functions she identified, and the total number of utterances per function was calculated. In this study, the L1 and L2 code-switching discourse was coded as either social needs, controlling, informing, or reasoning. As projecting is a language function which was very infrequent in the group interaction data, it was excluded in the present analysis. The utterances of each of the four categories in L1 and in L2 were then counted in terms of words since utterances might vary in length. Single English words in Chinese context and single Chinese words in English context were not counted because the focus of analysis was on intersentential (i.e., between sentences) rather than intrasentential (i.e., within sentences) switching. Subsequently, 10% of the L1 and L2 code-switching discourse data was coded by two other experienced coders independently, and the interrater reliability was found to be .83.

The utterances of informing and reasoning were then examined in respect of L1/L2 switching to determine the role of English and of Chinese in relation to academic discourse use. As has been discussed in chapter 2, Cummins (1991a) distinguished between conversational language and academic language in his discussion of language proficiency. However, he did not
define these two types of language in terms of discourse analysis. The present analysis used Halliday’s (1973) interpersonal and ideational language functions as broad categories, and Staab’s (1986) four language functions of social needs, controlling, informing, and reasoning as analytical categories, to correspond to Cummins’ conversational and academic language. Within ideational functions, the analysis focused particularly on reasoning as high level academic discourse.

Figure 13: Halliday / Staab Language Functions

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<th></th>
<th>Social needs</th>
<th>Interpersonal</th>
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<tr>
<td></td>
<td>1. Asserting personal rights and / or needs.</td>
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<td></td>
<td>2. Asserting negative expressions: criticizing, arguing, threatening, and giving negative opinions.</td>
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<td>3. Asserting positive expressions.</td>
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<td></td>
<td>4. Requesting an opinion.</td>
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<td>5. Incidental expressions.</td>
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<tr>
<th></th>
<th>Controlling</th>
<th>Interpersonal</th>
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<td></td>
<td>1. Controlling actions of self and others.</td>
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<td></td>
<td>2. Requesting directions.</td>
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<td>3. Requesting another’s attention.</td>
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<tr>
<th></th>
<th>Projecting</th>
<th>Interpersonal</th>
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<td></td>
<td>1. Projecting into the feelings and reactions of others.</td>
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<td></td>
<td>2. Projecting into the experiences of others.</td>
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<th></th>
<th>Informing</th>
<th>Ideational</th>
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<td></td>
<td>1. Commenting on past or present events: labeling, noting details, noting specific incidents, and / or noting sequence (including statements made in both first and third person).</td>
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<td></td>
<td>2. Making generalizations based on specific events and details.</td>
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<td>3. Requesting information.</td>
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<th></th>
<th>Reasoning</th>
<th>Ideational</th>
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<td></td>
<td>1. Explaining a process.</td>
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<td></td>
<td>2. Recognizing causal and dependent relationships.</td>
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<td></td>
<td>3. Recognizing problems and their solutions.</td>
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<td></td>
<td>4. Justifying judgments and actions.</td>
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<td></td>
<td>5. Drawing conclusions.</td>
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<td></td>
<td>6. Recognizing principles.</td>
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<tr>
<td></td>
<td>7. Requesting a reason.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8. Anticipating / forecasting (in terms of anticipating problems, possible solutions, alternative courses of action when problem is spotted, and predicting consequences).</td>
<td></td>
</tr>
</tbody>
</table>

Note: The above language functions and subfunctions are based on Halliday (1973) and Staab (1986).
3.3.4 Knowledge Structure Analysis

Finally, the L1 and L2 code-switching discourse for ideational functions was examined using the knowledge structure analysis of classification proposed by Mohan (1986), particularly the KSA for oral discourse (Mohan, 1998). In his 1986 work, *Language and Content*, Mohan developed a framework of activities and of their relation to discourse as an integrated model of language and content teaching in second language education. He proposed that "there is a general framework for the body of knowledge in an activity" (1986, p. vi), which he termed the "Knowledge Framework." At a more detailed level, the Knowledge Framework consists of six main structures of knowledge, three at the level of action situation and three at the level of background knowledge (see Figure 13). The action situation is specific and practical. It includes such knowledge structures as description, sequence, and choice. Background knowledge is general and theoretical. It includes such knowledge structures as classification, principles, and evaluation.

Figure 14: The Knowledge Framework of an Activity
(Based on Mohan, 1986)

<table>
<thead>
<tr>
<th>Classification</th>
<th>Principles</th>
<th>Evaluation</th>
<th>Background knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Sequence</td>
<td>Choice</td>
<td>Action situation</td>
</tr>
</tbody>
</table>

Chapter 2 of this work discussed, among other issues, the matter of transfer between L1 and L2 and the related question of whether the role of language was viewed through a conduit metaphor or a construction metaphor. It used examples of scientific and common sense classification of diseases to raise the conduit/construction issue. With respect to the present analysis of research data, this study examined the discourse of classification in relation to code-switching. Procedurally, the L1/L2 code-switching discourse for ideational functions was searched for strips that contained both switching between English and Chinese and the
knowledge structure of classification. These strips of discourse were further examined to reveal the relation between L1 and L2 use and the construction of classificatory knowledge.

### 3.4 Data Presentation

Following the new paradigm in social psychology research described by Harré (1993), this study takes Chinese students as agents acting intentionally according to collectively shared social representations (e.g., Cranach, 1992; Doise et al., 1993; Thommen et al., 1992) in the process of cooperative learning to achieve purposeful goals. It views recent Chinese immigrant students in this study as a particular group and their opinions and goals as reflections of social representations of the group, and presents its research data accordingly. By presenting the research data as social representations of the Chinese students as a given group, it takes participants’ opinions and interactions as a whole instead of focusing on individual differences. This is not to ignore the fact that individual Chinese students in this study differed in their opinions and their intended goals for cooperative learning. This is to bring together these individual Chinese immigrant students’ views on cooperative learning in ESL classes as reflections of social representations of that particular group.

### 3.5 Research Trustworthiness

This study intended to examine cooperative learning as a language socialization activity in real and natural ESL classroom settings. It did not use conventional, experimentalist standards of internal validity (i.e., “truth value”), external validity (i.e., applicability), reliability (i.e., consistency), and objectivity (i.e., neutrality) to judge its quality. Instead, it applied a different set of criteria proposed by Lincoln and Guba (1985) to judge its trustworthiness, namely, credibility, transferability, dependability, and confirmability. Credibility (paralleling internal validity)
addresses the question whether the reconstructions (i.e., the research findings and interpretations) arrived at via the study are “credible to the constructors of the original multiple realities” (p. 296). Transferability (paralleling external validity) addresses such questions as whether the researcher has provided a thick description of the research context to make it possible for the person who seeks to make a replication to make judgments about contextual similarity.

Dependability (paralleling reliability) asks the question whether both factors of instability and factors of phenomenal or design induced change are taken into consideration. Confirmability (paralleling objectivity) deals with the issue whether the characteristics of the data, rather than those of the researcher, are confirmable.

To meet the four trustworthiness criteria, the current study took the following actions. Firstly, the researcher invested sufficient time to become oriented to the ESL classroom situation of this particular school because she considered it very difficult to understand the phenomenon of cooperative learning without reference to the classroom context in which it was embedded.

Secondly, the researcher spent enough time in the classroom to enable participants to get used to her presence so as to reduce misinformation introduced by distortions either of the researcher herself for drawing undue attention, or of the participants for overreacting or under-reacting.

Thirdly, the researcher built and maintained trust with participants since the ultimate credibility of the findings depended upon the extent to which trust had been established. Fourthly, the researcher did not (deliberately) influence or manipulate the conditions of the study; in other words, she reduced her influence or manipulation to the minimum. Fifthly, the researcher did not impose prior categories on the results of the interviews, but let respondent categories dominate the findings to make the researcher’s interpretations of data credible to those who provided them. Lastly, the researcher provided sufficient description of the context of the findings to enable
someone interested in making a transfer to decide whether transfer could be contemplated as a possibility.

Taking steps to ensure research trustworthiness does not imply that the researcher sought for a neutral ground from which to understand Chinese immigrant students' meaning. On the contrary, she assumed that the understanding she brought to the study of Chinese students was grounded in her own experiences and patterns of meaning (Pratt, 1992). The researcher herself is Chinese and speaks English as a second language. She started learning English when she was about the same age as the Chinese students in this study. In addition, her child had also studied in an ESL program at a Canadian school for two years and had gone through the processes which the Chinese immigrant students in this study were going through. These experiences and the researcher's understanding of them acted as reference points through which she interpreted the beliefs and actions of the Chinese students in this study, consciously or subconsciously, willingly or unwillingly.

3.6 Working Forwards and Backwards

When this study first started, dilemmas were not foremost in the mind of the researcher. The study began with an assumption that students would be relatively consistent in their interviews and their classroom interactions. During the course of the research, conflicting views and discourses emerged from interview and observation data so noticeably and so persistently that the researcher's effort to look for consistency was in vain. Finally, she came to realize that conflicts and dilemmas of cooperative learning were a classroom reality, and that they were part of Chinese immigrant students' living experiences of language socialization. This understanding of the data in turn influenced the focus of the study. As a result, the study followed the standard steps of qualitative research and worked forwards from formulating research problems to
collecting data to analyzing data, and then worked backwards from data to research problems. Through this forward and backward process, the research problems became clearer, the research questions were sharpened, and the research findings made better sense.

To summarize, the present study aimed to explore Chinese immigrant students’ perceptions and actions on cooperative learning, and the relationship between their perceptions and actions. It used qualitative research methods to see how discourse provided evidence of cooperative learning in the classroom context. It also used discourse analysis methods to see how discourse was dependent on this context. By bringing the two different research traditions together, the present study sought to gain information at both theory and practice levels of cooperative learning as a language socialization activity. Through unpacking how Chinese immigrant students perceived and did cooperative learning and how their perceptions and actions were related, it aimed to provide a better understanding of cooperative learning as a dilemmatic situation, where different interpretations and expectations were held, and where conflicts and tensions were encountered.
CHAPTER 4:

COOPERATIVE LEARNING: A MATTER OF DILEMMAS FOR L2 LEARNERS

This chapter presents the findings for research question one: What are the dilemmas, if any, that Chinese immigrant students encounter in their living experiences of cooperative learning in ESL classes? It discusses the general issue of whether cooperative learning is a simple solution or a matter of dilemmas for second language learners. Section 4.1 presents the interview data which addresses how the Chinese students in this study perceived cooperative learning in ESL classes. Section 4.2 presents the discourse data obtained through classroom observation on how these students actually did cooperative learning in small groups in ESL classes. Section 4.3 discusses the findings reported in sections 4.1 and 4.2.

4.1 Conflicting Views of Cooperative Learning

As mentioned in chapter 2, second language education literature maintains that cooperative learning is beneficial to second language learners. How did the Chinese immigrant students in this study view this educational innovation in ESL classes? Did they like working in groups? What were the kinds of things they liked? Was there anything they did not like about working in groups? What were the kinds of things they did not like? If they had the choice, would they rather work individually or in groups? What would be the reasons for their preferences? These were some of the questions included in the interviews with 49 Chinese immigrant students in the present study. The purpose was to find out how the Chinese immigrant students generally perceived cooperative learning in ESL classes.
4.1.1 Likes Versus Dislikes About Working in Groups

A close examination of the interview responses with the inductive analysis method (McMillan & Schmacher, 1993) shows that these Chinese immigrant students had conflicting views of cooperative learning. Working together was seen both positively and negatively by individual students. Things they reported they liked about working in groups contradicted things they reported they did not like about working in groups.

4.1.1.1 More Ideas Versus Hard to Get Consensus

Twenty-one students said that they felt that they usually came up with more and different ideas in groups than when working alone. They were more motivated to provide their ideas in the small group setting than in the whole-class setting because there was more chance for their ideas to be accepted. They felt they could share their ideas and choose the best one. They also felt that they obtained more content information about the topic or project they were working on and learned more knowledge. The following are a few excerpts from the interviews. In these and following excerpts, italics stand for utterances made by the interviewees in Mandarin and were translated into English by the researcher. Words in brackets were inserted by the researcher to avoid ambiguity.

* We can get a lot of ideas, not just one or two.
* When there are too many people together, some people’s ideas or thoughts won’t get accepted. While in small groups we can provide our ideas.
* I like to share ideas with others and choose the best one.
* Because we can discussing and we can find a lot of information about project.

On the other hand, 12 students reported that too many ideas could cause problems. Because they could not use all of the ideas suggested by group members, they needed to decide which one(s) to use and which one(s) not to use. Also, they sometimes got different ideas and could not reach an agreement. Their discussion became long and noisy and sometimes turned
into an argument or even a quarrel. When that happened, they all felt frustrated. Below are a few examples of such concerns:

- Sometimes it's too many idea and we have to talk about which idea we need to use it, which didn't need to use it.
- Sometimes we have different opinions, don't agree with each other, and engage in bickering.
- Sometime like you think your ideas are right, but people don't agree with you and you sometimes feel frustrated.
- Some people think they are right in everything, others are always wrong. They think their ideas are the best.

4.1.1.2 Faster, Easier, Better and Non-Threatening Versus Too Noisy and Taking Longer Time

Nine students considered that working in groups generated effective results. It made the work easier for them, especially for those who arrived in Canada recently and just joined the ESL program. Working in groups also enabled them to complete their work faster and better. They commented:

- If you just come to Canada, maybe you can a little bit easier . . . the other old student will help you.
- It's easier to manage that way. Like, in one group, some people are brave and dare to speak in public. Some people . . . don't dare to speak in public. So, we can have those who are brave to speak in public, and those who aren't to write the scripts.
- We can do our work quicklier, quickly . . .
- You can share the ideas, and you can work better.

In addition, eight respondents reported that the atmosphere in small groups was most often non-threatening. It was relaxing, fun, and interesting to learn in groups. They could do oral presentations with their group members, which took away their fear of having to speak in front of the whole class. They also got to make friends and know other people in the class. They said:

- It's relaxing. We also learn more.
- And it's more fun, more interested.
- I will not scare to speak, because . . . two person is better than one, right? And I think the work will be better too.
* Make more friends.
* We can work with different people in different groups for different topics.

Similar results have been reported in other studies. Obah’s (1993) ESL students stated that working in groups took away the fear of talking in class, making mistakes, and exposing ignorance. Tsui’s (1996) ESL teachers commented that students were more willing to speak up after they had discussed the topic in groups, not only because they had a chance to rehearse their ideas in groups, but also because they felt they had the support of their group members. Flowerdew’s (in press) students felt more comfortable giving feedback in small groups because they would not cause peers to lose face in front of the whole class. Her students also felt more comfortable voicing groups’ opinions because they could avoid losing face themselves. In case there were any errors, they would be the group’s and not the individual’s.

Contrary to the above findings, six students in this study considered that working in groups did not generate effective results. Groups sometimes got noisy and difficult to organize, and tasks took longer to complete. The following quotations illustrate these concerns:

* Sometimes everybody is talking about his/her own opinion. Very noisy. No way to get organized.
* Sometimes, it’s too noisy.
* You need to discuss for a long time when there are divided opinions. You would have made your decision long ago if you were working on your own.

4.1.1.3 Sharing the Work Load Versus Some Group Members Not Doing Their Part of the Job

Nine students responded that working in groups reduced their work load. When doing a task or assignment alone, they had to prepare and do all the work by themselves. When working in groups, they could divide the work, each group member being responsible for one part. As a result, the work load was less heavy and intense. Below are a few examples of such comments:
* When we work together, the work load for each person won’t be that heavy and intense.
* I don’t need to do all the work. Everybody can share the work.
* Each person will do less work than . . . individual.
* You don’t need to consider the whole thing. Each person thinks of his own part. Then, we put things together.

Nevertheless, nine students reported that the distribution of the group work load was not always equal. Some group members did not or would not do their part of the task, while others ended up doing all the job or a large part of it. Those members who did more work than others in groups felt that it was unfair that way. They stated:

* Sometimes the distribution of work is not equal. Some people do more, some do less. It’s not fair.
* If there is a wretched guy in your group, we would be tied up. If he really didn’t want to do the work, our group would be held back.
* Some classmates are lazy. You have to do all the work. It’s rather tiring.
* When you are unlucky and are in a group in which all are weak, then it turns out that you do all the writing on your own.
* Just like working on this science report, science project, my partner didn’t do anything. He truly didn’t do anything. I had to do everything. But the teacher asked me to give him a mark. I think it’s not really fair.

4.1.1.4 Helping Each Other Versus Demonstrating Individual Ability

Nine students commented that they could help each other in small groups. Sometimes they felt that they were unable to complete a task independently because they did not understand the task or were not sure how to do it. When working in groups, they could ask each other for help, discuss their problems, and finish the task collectively:

* People can help each other. Better than to work on my own.
* So we can help each other. If you don’t understand something, he can teach you. Or I can teach him.
* If you don’t understand something, all of us can discuss together.
* If I’m not really sure what I’m doing, I can ask the other one. I think it will be better, better than one person do the thing.
In contrast, three students felt that they had no opportunities to demonstrate their individual abilities to the teacher when doing group work. They felt that their individual performance would be better if they worked alone. They commented as below:

* I . . . want to prepare for my best performance. Sometime, I'd rather work myself because I know I can do it, but I don't know about my group.

* You can't show your work to the teachers . . . you were with other people . . . If you work alone . . . you can show the teacher your work.

* Sometimes I can't . . . do my best . . . because in group we have to get consensus. You must, other people must agree with you. If we work individually . . . I just do my own. I can do my best.

Chinese students' desire for demonstrating individual ability has been reported in other studies. In her survey of language learning style of university students in the PRC, Dirksen (1990) found that 49% of 1,076 respondents indicated that they wanted to do assignments better than others in the class. Flowerdew and Miller (1995) also documented a high level of achievement motivation with Hong Kong university students, partly because achievement for young people was defined almost exclusively in academic terms in Chinese culture, and partly because good grades at university were associated with a good job upon graduation.

4.1.1.5 More Chance to Practice English Versus Speaking the First Language Too Much

Six students responded that working in groups provided them with more opportunities to interact with other students in class. Because they needed to participate in discussion, they talked more and had more chances to speak English. Consequently, their oral English improved.

Students noted:

* We can discuss in groups.

* We can talk to one another.

* We can . . . practice our English.

* You can improve your oral [English].
However, working in groups also provided students with more opportunities to interact in their first languages. Some students even felt peer pressure not to speak English in groups. Five respondents stated that people were using their first languages too much in groups, sometimes not on task. The following interview excerpts expressed the concerns of these students:

* Sometimes it kind of . . . wasting time. Like we'd chitchat, and talk in our own language, and talk about something that is nothing about class, and waste time.
* Some people would never speak English and would scold you if you do. It's disgusting.
* We talk too much in Mandarin.

4.1.1.6 Students of Two Minds

The conflicting views of things liked and disliked about working in groups presented above were not expressed by two distinctively separate groups, one in favor of cooperative learning and the other not in favor of it. On the contrary, many students in this study seemed to be of two minds, both for and against. They liked certain things about working in groups, but disliked other things. Following are two excerpts from interview data conducted in English that demonstrate students being in two minds, having conflicts within themselves. In these excerpts, R stands for the researcher, and S refers to a student.

**Excerpt 1:**

R: What are the kind of things you like about working in groups?
S: Each person will do less work than one person, than individual. They can sharing ideas.
R: Are there any things you don’t like about working in groups?
S: Sometimes I can’t, I can’t do my best. Or if your group is, other people is too lazy, it is hard to work in that kind of group. Because in group we have to get consensus. You must, other people must agree with you. If we work individually, I can, I just do my own. I can do my best.

**Excerpt 2:**

R: What are the kind of things you like about working in groups?
S: I don’t need to do all the work. Everybody can share the work. Sometimes when we have free time, we can talk.
R: Are there any things you don’t like about working in groups?
S: If all groups are all Cantonese, or some different countries. And you won’t understand their language. You feel not very comfortable. Sometime like you think your ideas are right, but people don’t agree with you. and you sometimes feel frustrated.

4.1.2 Explanations for Preferring / Not Preferring to Work Individually

When asked whether they would prefer working individually in ESL classes, 34 of the 49 students (70%) said no. 10 students (20%) said yes. The remaining 5 (10%) said sometimes yes and sometimes no. The students who said no gave their reasons for why they would not prefer working individually. The students who said yes gave their reasons for why they would prefer working individually in ESL classes. A close examination of student responses reveals that the reasons some students gave for why they would not prefer working individually were in contradiction to reasons others gave for why they would prefer working individually in ESL classes as shown below.

4.1.2.1 Helping and Learning From Each Other Versus Not Working Well With Each Other

Among the 34 students who responded negatively to working individually in ESL classes, 10 stated that they could help each other when working in groups. When there was anything that did not seem to be very clear or when they had difficulty working on a task, they could discuss with their group members or ask them for help. If working individually, they would have nobody to turn to if they ran into any difficulties. As they put it in the interviews:

* When you are studying by yourself, you don’t know whom you can ask if you don’t know something. When we work together, we have the same information. If there’s anything unclear to me, I can ask others. They will tell me. It’s just like that, we can help each other.

* It would be difficult when you need others’ help. When studying together, it’s convenient to help one another.
* My English is poor. I don't know what the teacher says. When I don't understand some English, they can help me [in the group].

In addition, five students responded that they had opportunities to learn from each other in groups in terms of the English language and content information needed for a school project or homework. Learning experience in groups motivated them to learn together with their group members. They stated:

* Because you can learn about things . . . from others people, like English, or something . . . about homework, or the project. So if you do it yourself . . . maybe will very hard. The result will not too good.
* You can learn more, learn from each other.
* When working together, others can do but you can’t. It makes you want to learn with others.

In contrast, 10 students responded positively to working individually in ESL classes. One of them gave the following reason. It appears that this student’s past educational experience in his home country did not prepare him for the cooperative learning situation in the Canadian high school.

* I don't cooperate with others well. I never collaborated with others since I was little. I always did my work alone.

4.1.2.2 Effective Results of Group Work Versus Convenient to Work on One’s Own

Eleven students chose not to work individually because it was more effective to work in groups. With several people working together on a task, it was easier and faster to find the information they needed or to discuss a problem. The following are some typical comments in this regard:

* It's easier to find information when more people work together.
* It's faster to work together. Sometimes we can chat a little when we finish our work.
* It's convenient for us to help one another when studying together.
* We can get more ideas and do the best job.
In contrast, five students who preferred to work individually in ESL classes said that it was more convenient and time-saving to work by oneself than in groups. They did not have to ask for their group members' opinions and wait for their approval. Some even considered talking to group members as a kind of interruption that distracted them from doing their work. They said:

* It's convenient to work on my own.
* I think do by my own is good, because we always . . . talk to each other, so we forget to do the [work]. . . . Because I didn’t have any person to talk to, so I’ll just study.
* . . . because no one can bother me . . .
* I don’t have to ask them. I can just do it. I don’t have to wait for another day and ask them “Do you like this idea?” I can just finish it.
* Didn’t have to waste time.

Similar findings were reported in Cortazzi and Jin's (1996) study about student learning styles. They approached fifteen British, Australia, and North American teachers of English working at universities in the PRC. There was unanimous agreement that Chinese students were unwilling to work in groups and preferred whole-class or individual work. These teachers did not see this as a problem of cooperation or information sharing but rather as a result of students' desire to concentrate on learning tasks without being distracted by interacting with their classmates. Their students believed that the best use of class time was for the teacher to explain things, not for the students to discuss among themselves in groups.

4.1.2.3 Non-Threatening Group Atmosphere Versus Better Marks

Lam's (1997) research examined Hong Kong university students' learning style preferences. The students in her study considered working in groups and pairs more enjoyable than working on their own. Lam's finding has found support in the interview data of the present study. Six students chose to work in groups because of the non-threatening atmosphere. They felt that it was interesting, fun, and harmonious to learn together. Also, it reduced their fear of having
to speak alone to the whole class in oral presentations. Some quotations from the interviews follow:

* It's fun to work together.
* It's more harmonious to learn together.
* It's too lonely to study by yourself. It's interesting to study with classmates.
* You don't have to say all by yourself.
* I never had the experience of working in groups. It's a new experience. I feel good working in groups.

On the other hand, one student in this study preferred to work individually in ESL classes so that he could get better marks for individual work. He did not feel like doing all the work for the group and then sharing the mark with those who did not do their part of the work. In the words of this student:

* Some tests we will do together. But, like, you know somebody lazy... They'll just sit here and... don't do anything. Then... I do all the work, right? So, if I do it by myself, I get a high mark. I'll be better. I'll be happy.

4.1.2.4 Having More Ideas in Groups Versus Having One's Own Ideas

Three students responded that group discussion generated more ideas and different views. They felt that because of this they could do a better job. They would not have as many ideas when working alone. As they noted in the interviews:

* And we can have many idea, don't just from one's point of view. We can get more ideas and do the best job.
* Maybe I can work better if with a group, because there're... many people in it. We have many ideas, like mix them together.
* You'd have nobody to discuss with when working alone. There would be less idea.

As a contrast, three students claimed that they would prefer working individually in ESL classes so that they could have their own ideas. They would not need to spend time getting consensus from other group members. They could keep their ideas to themselves without having to share them with others. They commented:
* I can have my own ideas.
* I can have my own opinion.
* Because I feel I have my own idea. I don't like to share it with the other peoples. I want to do my own work.

4.1.2.5 Practicing English in Groups

Two students who would not prefer working individually in ESL classes explained that working in groups provided them with more chance to practice their English because they needed to participate in group discussion. They stated:

* I like in the groups. There are more people, then we can practice our English and speaking.
* We need group discussion, because in ESL is to study English, so we need more discussion and talk. We should work with group.

Interestingly, of the 10 students who preferred working individually in ESL classes, no one made any comments regarding speaking English to one another.

4.1.3 Clear Cut Opinions?

The interview results discussed in sections 4.1.1 and 4.1.2 are summarized in Appendix 2. The initial impression of clear cut opinions for or against cooperative learning gives way to an impression of ambivalent opinions. Take Question 13 ("Would you prefer working individually in ESL classes? Why?"), which was discussed in section 4.1.2. Seventy per cent of the 49 Chinese students did not prefer to work individually, which, on the face of it, suggests a clear cut opinion supported by a reason. For example, Student 1 said "yes" that he preferred to work individually and provided a reason that students talked too much in groups and forgot to do the work, whereas Student 2 said "no" that she did prefer working in groups, the reason being that it was boring to study on one's own. However, when their responses to Questions 11 and 12 (discussed in section 4.1.2) are taken into account, a different picture suggests itself. Both
students gave reasons against as well as for their responses to Question 13. In fact, this was the case with many students. 35 of the 49 students (71%) gave reasons for both liking and disliking cooperative learning.

Secondly, Student 1 and Student 2 gave rather similar reasons for and against cooperative learning in their responses to Questions 11 and 12. Both of them liked the increased ideas and information available in cooperative learning (i.e., “more information,” “can share ideas”). Both of them pointed to the difficulty of selecting from the number of ideas made available (i.e., “sometimes too many ideas,” “get into argument about what ideas to use”). Results in Appendix 2 suggest that there seemed to be a common set of reasons for and against cooperative learning shared by the 49 Chinese students. They seemed to share a fair degree of consensus on the positive and negative features of cooperative learning.

Thirdly, Student 1’s positive reason for cooperative learning (i.e., “more information”) was closely related to the negative reason (i.e., “sometimes too many ideas”). That is to say, the availability of information had both a positive and a negative side for this student. A similar pattern appears in a number of other reasons. For instance, Student 30 said that one thing he liked about cooperative learning was that they could have “more ideas.” On the other hand, what he did not like about cooperative learning was that they “did not know what to choose when having different opinions.” To put it in another way, while students might give different responses to whether they preferred working individually or not, many students expressed a view about cooperative learning as having both advantages and disadvantages, and often the same advantages and disadvantages. Indeed, sometimes the same aspect of cooperative learning has both positive and negative sides.
4.2 Cooperation in Cooperative Learning?

The most important arena in which dilemmas of cooperative learning come up in this study is not only in what students said in interviews, but also in what they did in groups. A close examination of observation data obtained through audio recording of group work in ESL classes with the ethnographic microanalysis method (Erickson, 1992) reveals that the Chinese immigrant students did not always cooperate during cooperative learning. It is true that there is discourse evidence of cooperation, but there is also discourse evidence of non-cooperation (i.e., the opposite of cooperation) and mis-cooperation (i.e., mis-conduct of cooperation). The discourse of cooperation coexists with the discourse of non-cooperation and of mis-cooperation. While there may be a range of possible interpretations of the Chinese students’ groups interactions, the present interpretations were based on the researcher’s presence and observations of the classroom context and her knowledge of the participants over a period of time.

4.2.1 Discourse of Cooperation

The discourse data of group work in ESL classes show that the Chinese immigrant students in this study were helping one another with both the English language and with subject matter.

4.2.1.1 Helping With the English Language

Helping with the English language is an important aspect of cooperation among Chinese immigrant students. They were observed assisting each other with spellings of English words, with English equivalents of Chinese words or Chinese equivalents of English words, with conceptual meanings of English words, and with English grammar.
The following excerpts from recorded group work illustrate that Chinese students helped one another with spellings of English words. In these and following examples, the numbers on the left hand side represent individual students. Italics stand for utterances made in Mandarin. Concurrent behavior is recorded in brackets. Student names mentioned in the excerpts are all pseudonyms.

Excerpt 3:

S1:  *How do you spell* lemon? L, e, m, o, n?
S2:  Lemon? L, e, m, o, n.

Excerpt 4:

S3:  Cherry, c, r, e, a. *How do you write* cherry?
S2:  C, h, e, r, r, y.

Excerpt 5:

S2:  *Do you know how to spell* watermelon?
S3:  *I know, m, i, l, l, a, n.*
S1:  *I'm not too sure about this one.*
S3:  M, i, l, l, a, n. M, i, l, l, a, n. Oh, m, e, l, o, n.

Excerpt 6:

S2:  The court charged him, *is court spelled like this?*
S1:  C, o, u, r, t.

Discourse data also show that the Chinese students helped each other in groups with English equivalents of Chinese words or Chinese equivalents of English words. Following excerpts are some typical examples of this kind of support:

Excerpt 7:

S2:  *How do you say* peach?
S1:  *It's* peach.
Excerpt 8:

S1: *How do you say crab? Did we write crab?*
S2: *Crab seems to be lab or something.*
S1: *Lab?*
S3: *Crab.*
S1: *Oh, crap. C, r, a, p, right?*
S3: *C, r, a, b. Crab.*

Excerpt 9:

S1: *Hey, do you know how to say shrimp?*
S2: *Shrimp.*
S1: *Is it shrimp?*
S2: *Yes.*

Excerpt 10:

S3: *Hey, how do you say court?*
S1: *Court, c, o, u, r, t.*

In addition, discourse data demonstrate that the Chinese immigrant students helped one another with conceptual meanings of English words. The following are some examples from recorded group work:

Excerpt 11:

S1: *Is wheat fruit?*
S2: *Wheat is fruit? I don’t believe so.*
S1: *Oh.*

Excerpt 12:

S1: *What is spinning? Is it rotating? S, p, i, n, n, i, n, g.*
S2: *Yes, exactly.*
S1: *So something is rotating, right?*

Excerpt 13:

S1: *And the court charged him*
...
S2: *The court charged him*
S1: With assault.
S2: What sault? What is sault?
S1: Assault. *It means to sue him for what he did.*

Moreover, discourse data also indicate that the Chinese immigrant students helped each other with English grammar, particularly when they were constructing a piece of writing together in groups. Excerpts below illustrate this point clearly:

**Excerpt 14:**

S1: [Reading S2’s writing silently “The father was spanking his daughter. A woman was come”] “A woman was come” . . . “Was come”, there’s two verbs. Two verbs can’t put together, you know.

**Excerpt 15:**

S4: How does a chlorine get a full outer shell? Two chlorine share their electrons.
S3: [Writing] Two chlorine . . . two chlorine share
S2: Two chlorines.

**Excerpt 16:**

S4: What is a double bond?
. . .
S2: Two pairs of electrons?
S1: Yeah, when, when the atoms share two pairs of electrons, when
S4: [Writing] When, the atoms, share, two pair of
S3: Pairs.

**4.2.1.2 Helping With Subject Matter**

Helping with subject matter is another important aspect of cooperation among Chinese immigrant students in this study. They were observed supporting one another with content information when working in groups on both oral and written tasks. This is shown in the following examples:
Excerpt 17:

S1: There's another Mg. [Counting the electrons on the outer shell of a chlorine atom from the worksheet] One, two, three, four, five, six, seven. What shall I do?
S2: It's MgCl₂.
S1: Oh. One, two, three, four, five, six, seven. One, two, three, four, five, six, seven. One, two, three, four, five, six, seven. One, two, three, four, five, six, seven. There're two more [electrons on the outer shell of a magnesium atom].
S2: Then one comes here, and one comes here.
S1: So one comes here. Oh, there's one here, and one here too. Ah, you are good.

Excerpt 18:

S3: This is an example of physical abuse.
S5: I don't agree.
S1: I don't agree.
S3: Or, economic abuse.
S4: Economic abuse.
S1: No.
S5: I think it's kind of psychological.

4.2.2 Discourse of Non-Cooperation

The observation data of group work in ESL classes also reveal that the same Chinese immigrant students did things that were opposite of cooperation. They spoke to each other with a non-positive emotional tone, ignored group members' request for assistance, and sometimes rejected support offered to them.

4.2.2.1 Lack of a Positive Emotional Tone

The following excerpts show that the Chinese immigrant students were impatient with their group members' questions. They gave group members negative comments, found faults in others, and even called each other names.

Excerpt 19:

S1: [To 2] You do a model of a house.
S2: What model?
S1: Can't you have a look at the pages at the back. [Turns the pages of S2's book until page 90. Taps the book.] Stupid?

Excerpt 20:

S2: Who carried the jewels?
S1: The jewels were, you don't need to explain.
S3: In the safe.
S2: So the jewels were in the safe. How did they find they were stolen?
S1: Mm?
S2: How did they find out?
S1: It was opened.
S3: It was opened.
S2: The safe was opened?
S1: Yes, and the jewels were not there. How can you be so stupid?
S2: Shut up.

Excerpt 21:

S3: Do I use the past tense or the present tense?
S1: ... The past tense of course. [Pointing at the handout] You know was, don't you? You know went, don't you? You know came, don't you?

Excerpt 22:

S3: What homework?
...
S2: Did you find it [the homework]?
S1: [To 4] Last time I asked you if there any homework, and you tell me no.
...
S4: Don't be unpleasant. I told you no. So what?
S1: So.
S4: So what?
S1: If we don't get a high mark, it's not my fault.
S4: It's your fault. You don't listen by yourself.

Excerpt 23:

S2: The court charged him, is court spelled like this?
S1: C, o, u, r, t.
S2: [Referring to the last letter] P or t? You don't speak clearly.
S1: T.
S2: [Correcting 1] T. You have a strong accent.
4.2.2.2 Request for Help Being Ignored

The following excerpts indicate that the Chinese immigrant students did not always attend to their group members’ request for assistance. In Excerpt 24, Student 2 asked his group members for help with spelling of the English word *cauliflower*. In Excerpt 25, Student 1 asked for help with the English equivalent of the Chinese word *shrimp*. In neither of these cases was the student’s request for assistance fulfilled.

**Excerpt 24:**

S1: What else? *We’ve got seven.*

...  
S2: C, h, e, r, r, y.  
S1: Orange, orange, orange.  
S3: *The rest we can write vegetables.*  
S2: *How do you spell cauliflowers?*  
S1: Onion.

**Excerpt 25:**

S1: *What else?...*  
S2: *And shrimp.*  
S1: *How do you say shrimp?*  
S2: Turkey.  
S3: Beef.  
S2: Ham.

4.2.2.3 Rejecting Help

Of the discourse data recorded during group work, there is evidence that the Chinese immigrant students refused to accept their group member’s suggestions for improvement. A simple illustration will suffice:

**Excerpt 26:**

S1: *You can say the police caught him.*  
S2: *Yes [writing].*  
S1: *[Seeing 2 writing “And then”] Then, no “And”, then.*  
S2: *Leave me alone. I like it this way.*
4.2.2.4 Some Group Members Not Doing Their Part of the Job

In Excerpt 27 below, Students 1 and 3, who shared the same first language, were talking about Student 2, who spoke a different mother tongue. Student 1’s experiences with group work seem to suggest that sometimes some group members did not or would not do their part of the work.

Excerpt 27:

S1: You know how to make a model?
S2: Oh, yah.
S1: Okay. Give me your model next Monday. Next Monday, you should have the model. If you don’t have, our presentation are going to be zero.

...  
S1: [To 3] What should I do? I’m really afraid he is not going to do it. He is not going to do whatever he is supposed to do. He’ll tell me he’s forgotten.
S3: If he forgets, you’ll be in trouble.
S1: Last time, I was in the same group with him. Four of us did an oral presentation. We three all prepared ours. I finished my part three weeks ahead. He just dragged, and dragged, and dragged. He dragged for three weeks.
S3: He didn’t do his part?
S1: He didn’t do it.

4.2.3 Discourse of Mis-Cooperation

The observation data of group work in ESL classes also exhibit that the Chinese immigrant students handled cooperative tasks not in the ways recommended in the literature. The students might think they were helping each other, but it is not the type of support cooperative learning aims at.

4.2.3.1 Dividing the Work up Rather Than Constructing Jointly

Instead of working together and thinking jointly, the Chinese students divided the group task up and then put it together. The excerpts below are just a few examples of this.
Excerpt 28:

S4: Hurry up.
S2: *Hurry up. Michael said one. I said one. It’s your turn.*
S1: *We said earlier they on their own send the news to Canada.*
S4: [Reading the line on the paper] They decide to send the news to Canada even though it’s illegal.
S2: Yeah. I already said that. She [Student 4] already wrote that down.
S2: Garry, why don’t you write one?
S3: *You can’t do that.*
S2: It’s getting boring. [To 3] *Hurry up, you. . . . Say one. Hurry up.* [To 1] Hey, Michael, don’t talk to him [Student 3]. *Let him think of one.*

Excerpt 29:

S2: [To 4] *You draw the diagram. I drew one already.*

Excerpt 30: (T stands for the teacher.)

T: Okay. When you finish [writing the questions], would you give it [the question sheet] back to the group that wrote the questions and they will mark it for you?

...  
S4: [To 1] So, you think about the first one, and I’ll think about the second one. Okay?

Excerpt 31:

S4: [Reading the questions written by another group] What is hydrogen gas made of? How does, how does a chlorine get a full outer shell? What is a double bond? Okay. Okay. [To 1] You write a answer.
S1: Why me?
S4: . . . Okay. We can take turns. Okay? So, we discuss it. You just record it. What is hydrogen gas make of?
S1: It is made of compound of atoms of hydrogen . . .

...  
S4: How, how does, [to 2] Alex, Alex, it’s your turn. How does a chlorine get a full outer shell?
4.2.3.2 Roles Divided Between Thinking and Doing

The following two excerpts from group work demonstrate that the Chinese students divided the work roles between thinking and doing. Thinking was the facilitator’s job. The recorder was only responsible for writing down whatever ideas the facilitator came up with.

Excerpt 32:

S2: *You can just write they decide to send the news out whatever happens.*
S4: *Can you translate it into English? Thank you.*
S2: *Can’t you translate it yourself?*
S4: *Then why do I need you to tell me [in Chinese]?
S2: Okay. They decide to, they decide to send, they decide to send the news to Canada anyway, even though, even though is forbidden.*

Excerpt 33:

S2: *If you want to say the PLA [the People’s Liberation Army] taken over the Beijing media.*
S4: [Writing] The PLA taking over
S2: Proves that Eddy
S4: [Writing] the me
S2: Was right about information control. That’s it.
S4: *What are you saying? I just wrote media and you already finished speaking.*
S2: Yah.
S4: *Say that again.*
S2: *Okay. You just write the PLA, what the heck is PLA? What the heck is PLA?*
S4: Just repeat the sentence. Thank you.
S2: Okay. The PLA took, had taken over the Beijing media.
S4: Taking?
S2: Had taken. Had taken over the Beijing media.
S4: [Writing] The Beijing, Beijing media.
S2: Proves that Eddy was right about information control. That’s it.

4.2.3.3 Getting the Job Done Rather Than Sharing the Knowledge of the Task

The observation data also indicate that the Chinese students wanted to get the job done rather than to spend time reasoning about why they were doing the work in a particular fashion, or to discuss different opinions when they arose.
Excerpt 34: Not reasoning about why they were doing the task that way.

S1: You’re writing the third paragraph. It’s about what happened when the lights came back on.

... S2: How do I know how you want to write it?
S3: No. You write your own. We write different paragraphs.
S2: Then we put four paragraphs together?
S3: Then someone tries to connect them. Understand?
S2: I don’t need to attend to yours?
S3: No.

Excerpt 35: Copying from the information sheet.

S3: What is a molecule?
S1: Is the smallest group of atom
S4: Molecule is in here [pointing to the information sheet].
S3: It’s the smallest group
S4: No, no, here [pointing to the information sheet]. You can copy it.
S2: Or you can, if you want to, write in your own words.
S3: No, I don’t.

Excerpt 36: No discussion when answers to questions differ.

S2: Nothing.
S3: Number 8.
S1: British.
S3: Put a question mark.
S2: Okay.
S3: Okay. Number 9. Newfies?
S2: Irish.
S4: Acadian.
S1: Acadian.
S4: Acadian.
S1: Question mark.
S3: Question mark.
S4: Oh.
4.2.3.4 Helping Meaning Giving Answers out to Partners

The observation data show that when Chinese students were required to help their group members, they tended to give out answers rather than to help their group members reach their own conclusions. Excerpt 37 below, in which T stands for a teacher, illustrates this point:

**Excerpt 37:**

S1: [Reading S2's writing silently “The father was spanking his daughter. A woman was come”] “A woman was come,” come where?
T: Try to be positive if you can, please.
S1: Oh, yeah. A woman saw it, a woman saw it and called the police.
S2: *I am not finished yet.* [S2 is writing down exactly what I has said.]. . . [To S1] Then what?

Findings on students' mis-cooperation in small groups have been reported in other studies. In discussing the mismatch between teacher intention and learner interpretation of a cooperative group task, Kumaravadivelu (1991) described a classroom teacher giving students a problem to solve in small groups and expecting that it would generate discussions, disagreement, and negotiation, which would give students an opportunity for an extended, meaningful dialogue. The students, however, used the simplest possible strategy and solved the problem in a matter of few minutes. The teacher's expectation of negotiation and of an extended oral discourse was not met.

4.3 Cooperative Learning as a Matter of Dilemmas

Based on the literature that describes Chinese culture as being collectivistic and emphasizing cooperation as a social value (e.g., Carson & Nelson, 1994; Flowerdew, in press; Flowerdew & Miller, 1995; Nelson, 1995; Oxford & Anderson, 1995), some might expect that Chinese students would have few problems with cooperative learning. Much of this profile is borne out by the data in this study, but much of it is also sharply contradicted. The findings
presented in this chapter suggest that the Chinese immigrant students had conflicting views of cooperative learning. They liked and disliked working in groups at the same time. Things they liked and disliked about working in groups contradicted each other. The findings also suggest that these Chinese immigrant students produced conflicting discourse in their actual doing of cooperative learning in the classroom. There is discourse evidence of non-cooperation and mis-cooperation as well as cooperation. The opposing themes of their reflections and discourse acts on cooperative learning suggest that Chinese immigrant students' everyday living experiences of this educational innovation in ESL classes is shaped by dilemmatic qualities. Cooperative learning appears to be a matter of dilemmas for these students, rather than a straightforward solution to their problems of learning a second language, learning the subject matter, and maintaining their first language.

In her research on intellectual discussion in a university department, Tracy (1997) conceived of colloquium as a situation involving multiple dilemmas at different levels. A dilemmatic situation, she maintained, is “a communicative occasion that involves tensions and contradiction” (p. 4). Tensions are the weaker meaning of the dilemma concept; absolute contradiction is its stronger meaning. Although all dilemmas involve tensions among beliefs, not all involve direct contradiction. In the present study, both the weaker and the stronger meanings of the term dilemma surface through interview and discourse data. The Chinese immigrant students revealed tensions and contradictions of cooperative learning both in how they thought about it and in what they did in the classroom. Their views of cooperative learning contained contradictions. Their discourse of cooperative learning contained push and pull tensions. In this type of tension, choices were difficult to make because the balance of gains and losses seemed to be evenly matched.
One push and pull tension the Chinese immigrant students confronted with cooperative learning in ESL classes was between cooperation and individualism. Almost in the same breath they expressed a wish to work collaboratively and a need to work individually. They valued cooperation but at the same time wanted individualism. They were observed to help each other with English language and content subjects. They were also observed to give negative comments and ignore group members’ request for assistance. These students were under pressure to move out of the ESL program and integrate into the mainstream classroom. They might see themselves as sharing the same fate and striving to reach the same goal. But, they also wanted to draw ESL teachers’ attention to their individual progress, so that their language improvement would be recognized and they could thus be recommended to take mainstream classes.

Another push and pull tension students encountered with cooperative learning in ESL classes was between immediate action and potential understanding. They were observed to divide the task and get the job done quickly, but not to negotiate the best way to do the task or to debate the ideas behind what they were doing. Negotiating and debating could help develop students’ academic discourse, which would be of vital importance to their success in the upper grades. But, it could make cooperative group tasks take a long time to complete, and students did not want to spend that much time. If they chose to share knowledge about tasks, tasks would take longer to complete. If they decided to finish the work quickly, they might not spend time debating the best way to do the task.

Yet another push and pull tension the Chinese immigrant students faced with cooperative learning in ESL classes was between using their first language to help with second language learning and content learning and developing the second language for academic purposes, an issue which will be discussed in more detail in the next chapter. This and the above push and pull tensions were not expressed by students explicitly. They were probably unaware of the conflicts,
or were unable to articulate them clearly. Interpretations have been made based on the interview and observation data which show that the Chinese immigrant students were confronted by cooperative learning dilemmas that involved tensions and contradiction as a condition of learning in ESL classes.

4.3.1 Cooperative Learning as Part of the School Culture

Why did the Chinese immigrant students hold contradictory views of cooperative learning in ESL classes? Why did they produce conflicting discourse of cooperative learning in groups? Is it because cooperative learning has not been properly implemented, so that what needs to be done is to make a more thorough attempt at putting it right? If cooperative learning involved merely a few technical alternatives—for instance, evaluating individuals as well as groups, teaching conflicts resolution strategies, designing group work to accommodate different learning styles, or forming groups with students from various first languages—the answer might be as simple as the above. But, is cooperative learning just the sum of some technical alternatives, or is it part of a much larger educational culture? The Chinese immigrant students’ conflicting views and discourse of cooperative learning may arise from much more fundamental conflicts of values about education than can be resolved simply by tinkering with what happens in the cooperative groups. As will become clearer in the discussion that follows, varying patterns of cultural values would give rise to varying patterns of concerns and actions.

In discussing the implications of sociocultural contexts of language development for the classroom, Heath (1992) considered language learning and learning about culture to be intertwined. She presented the argument that all language learning is cultural learning, and explained that “the learning of language takes place within the political, economic, social, ideological, and aesthetic web of relationships of each community whose members see
themselves as belonging to a particular culture” (p. 104). From a language socialization perspective, the Chinese immigrant students were not only learning a new language in ESL classes, they were also learning a new culture. As Brown (1992) put it, “second language learning is often second culture learning” (p. 79). Culture here does not just refer to the surface features of a group such as food, clothing, and customs. It also refers to “the system of values, symbols, and shared meanings of a group including the embodiment of these values, symbols, and meanings into material objects and ritualized practices” (Sergiovanni & Corbally, 1984, p. viii). The school, as a group or a community, has a culture of its own. The culture of the school is linked to the wider culture of the society. For the Chinese immigrant students, second culture learning would mean learning the culture of the school as well as the culture of the society.

In the process of language socialization, ESL students are not considered to have left their prior knowledge and experiences in their home countries. They are assumed to bring prior knowledge and experience to their understanding of the new language and the new culture. Very often, their ability to make meaning out of curriculum content and instructional strategies is considered to be “dependent on the extent to which they could draw upon prior knowledge . . . and experiences” (Alton-Lee, Nuthall, & Patrick, 1993, p. 66). To put it in another way, the extent to which the Chinese immigrant students made sense of their cooperative learning experiences may depend on the connections or lack of connections they could make between the school culture they came from and the school culture of the Canadian high school where they were studying.

As mentioned in chapter 2, Werner’s (1991) and Lundgren’s (1981) concepts of school culture appear to involve only one party within a school: the faculty. As schools are made up of two major groups, the faculty and the students, any models of school culture would need to involve the students as well. Maehr and Buck (1993) distinguished two independent cultures
within one school, that of students and that of staff. But as how, what, and whether students learn is not entirely independent of how, what, and whether teachers teach, it would be difficult to separate the two cultures. In the following discussion about the impact of school culture on students’ theory and practice of cooperative learning, Werner’s concepts of the three elements will be used as convenient units to analyze the school culture of the Canadian high school where the Chinese immigrant students were studying and the school culture that they came from. However, the content of the three elements will be expanded so that it will include not only the faculty group, but also the student group.

4.3.2 The School Culture of Johnson Secondary School

It is beyond the scope of this work to discuss in detail all these three aspects of the school culture of Johnson Secondary School in which this study took place. Instead, particular emphasis will be directed toward the part within which cooperative learning was situated in ESL classes. Research data will be used to make the point wherever appropriate.

4.3.2.1 Core Pedagogy

One of the long-term educational goals for social development as approved by Vancouver School Board Trustees is that “Vancouver public schools seek to create an environment in which students will be able to work cooperatively with individuals and groups” (Vancouver School Board Communications Services, 1988, cited in Ashworth, Cummins, & Handscombe, 1989, p. 7). In their review report on Vancouver School Board’s ESL programs, Ashworth et al. recommended that cooperative learning, among other things, be used as an instructional strategy to provide opportunities for student interaction in English.
The ESL department of Johnson Secondary School made cooperative learning an ESL policy. This was spelled out very clearly in the ESL Handbook, of which every ESL student had a copy. The following quotation from the ESL Handbook illustrates the ESL department’s belief in cooperative learning and its philosophy for doing so.

The ESL staff at Johnson present a wide diversity of backgrounds, interests, and teaching styles. We are all enthusiastic, willing to learn, and open to trying new ideas for helping students develop their full potential. Following are the instructional strategies we believe in and put into practice in our teaching.

1) Cooperative learning. We provide students with opportunities to work in groups of different ages and grades, so that you benefit from peer tutoring and group interaction. Weaker students do not feel defeated by not being placed in a less progressive situation. Advanced students gain enrichment by helping weaker students.

The ESL teachers at Johnson Secondary School were influenced by a number of scholars in the field of cooperative learning, particularly Slavin. They adopted the definition of cooperative learning offered by him, which was cited on Page 1 of this work, and used Slavin’s articles to explain their cooperative learning and multi-level grouping policy. Cooperative learning methods such as Group Investigation, Co-op Co-op, Jigsaw II, Group Project, Numbered Heads Together, Think-Pair-Share, and Team Project which were advocated by Slavin (1995a) were observed in the ESL classes (For the rationale, preparation, and implementation of these methods, see Slavin, 1995a, chapters 4, 5, 6, and 7). A number of these methods have also been advocated by others (e.g., Johnson, Johnson, & Holubec, 1994a). The ESL department regarded these methods as having advantages for ESL learners since the mainstream classes used these methods and since the aim of the ESL program was to prepare ESL students for those mainstream classes.

Classroom observation data reveal that the ESL teachers in Johnson Secondary School not only believed in cooperative learning, but also worked at putting it into practice. In their teaching, they often required students to work in groups or pairs. They also consciously taught
ESL students group work skills and the language for cooperative group work, and took some steps in fostering cooperation among group members. Following are some examples from the researcher’s field notes and observation data obtained through audio recording:

**Excerpt 38: Requiring group work (T stands for a teacher.)**

T: So when magnesium burns in chlorine, each magnesium atom reacts with two chlorine atoms to form magnesium chloride. . . . The compound has no overall charge. Why? Why does it have no overall charge? . . . Talk to the other people in your groups, and see if you can come up with an answer why. Why does it have no overall charge?

**Excerpt 39: Teaching group work skills**

S3: [The youngest in the group, acting as the facilitator of this activity] This is an example of physical abuse.
S5: I don’t agree.
S1: I don’t agree.
S3: Or, economic abuse.
S4: Economic abuse.
S1: No.
S5: I think it’s kind of psychological. Sex is psychological.
T: [To 3] What does Nelly [Student 2] think? Ask her. [2 is not participating. T is teaching 3 to get 2 involved.]
S3: [To 2] This is economic abuse. Do you agree.?
S2: Yeah. This is an example.

**Excerpt 40: Teaching the language for group work**

T: Just to make sure here, when you are checking to see whether you understand what someone had said. One way is, [to 3] Jane?
S3: [Not saying anything]
T: [Trying to remind 3 of the sentence “Just to make sure that I understand, did you say”] Just, to, [pausing, seeing no responses from 3, to 5] Paul, help, please.
S5: Make sure
T: Just to make sure
S5: I understand
T: That I understand, [pausing] did you say [pausing]. Right?
S5: Yeah.
T: Okay. What’s another way to check that you really, really heard what somebody has said accurately? Anybody has any ideas? [Pausing] Let me see if I’ve got it. [Writing on the board] Let me see if I’ve got it, or got that. Let me see if I’ve got that.
Excerpt 41: Teaching skills and language for facilitating group work (Data from field notes.)

The following is on a big sheet of paper on a small white board in an ESL classroom.

<table>
<thead>
<tr>
<th>Facilitating skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>✅ Eye contact</td>
</tr>
</tbody>
</table>
| ✅ Intro Regarding . . .  
   Concerning . . . 
   In response to . . . |
| ✅ Check comprehension 
   Did everyone hear / understand me? |
| ✅ Any questions / problems? 
   Did I answer your question? 
   Any more / further questions? |

Excerpt 42: Requesting students to give help to group members (Data from field notes. T refers to a teacher.)

As the new groups were writing their group goals, T called 2.3 (Group 2, Student 3) out and talked to her for a few seconds. When 2.3 came back, 2.4 asked 2.3 what T had said to her. 2.3: "She wants me to help her with something." When class finished, T asked me what all that Mandarin in Group 2 was about. I couldn’t recall what students had said. Then I remembered and told T. T said: “I told Rita to help Susan, because Susan is rather weak. She will not do any work but sit there and speak Cantonese.” T asked me if 2.3 told the group what she had asked her to do. I said: “No. She just said you wanted her to do something for you.” T: “Good. I told Rita not to tell Susan.”

Excerpt 43: Setting up and evaluating group goals (Data from field notes. T represents a teacher.)

T gives groups back their group goals on a piece of pink paper and asks them to rate themselves on how well they have done with their goals. (T changes groups every month. When new groups form, they decide on their group goals and write them down on the pink paper. Groups have different goals. Some have one, while others have two or three.) T walks around the classroom and checks if the groups are working on their goals. Group 2’s goal is “Sharing ideas.” T asks Group 2: “Are you sharing your ideas?” Group 2: “Yes.” T says: “Okay. I’ll take your words” and gives Group 2 a pink card of “Super!” cut from a magazine. Eventually, each group has a pink card as a reward.

Excerpt 44: Teamwork awards (Data from field notes. T stands for a teacher.)

T announces that it’s time to change groups. Groups give back their group cards. T adds the period up. Cold Coffee group wins. T puts their card on the Teamwork Award pocket on the board and gives Cold Coffee group some cooperative bucks. T announces that this
is going to be the last groups for this term and tells the class that there’re going to be some neat prices for the collaborative bucks.

4.3.2.2 Structures

It can be said that the most distinct characteristic of the ESL program is its way of grouping students. As mentioned earlier in this work, the nine ESL classes at Johnson were not grouped according to language proficiency levels, as most ESL programs in secondary schools in the school district were, but on a multi-level basis. Students were randomly assigned to ESL courses by a school computer. The classes, therefore, had a wide range of English proficiency levels and ages. The ESL staff of Johnson believed that such multi-level grouping provided a learning environment in which students had more opportunities for assisting and sharing with peers, and for developing a sense of responsibility for the welfare of the group.

The ESL staff at Johnson were aware of the research literature that ability grouping had little or no effect on the overall achievement of secondary students (Slavin, 1990a) and that it often contributed to inequality (Gamoran, 1992). It was on such a philosophy of equity and of benefit for each individual student, weaker or advanced, that the multi-level grouping of ESL classes at the high school was based. To provide a physical environment convenient for cooperative learning to take place in heterogeneous classrooms, the ESL teachers in Johnson Secondary School arranged students to sit in groups of four, with four small desks clustered together, each student having one student sitting next to him/her and another student sitting facing him/her.
4.3.2.3 Norms

The ESL program of Johnson had specific guidelines for group formation. Teachers placed great emphasis upon implementation of these guidelines when forming groups in classes. Below are some examples of these guidelines and how teachers tried to put them into practice.

Excerpt 45: (Data from field notes.)

<table>
<thead>
<tr>
<th>Charter</th>
</tr>
</thead>
<tbody>
<tr>
<td>• We don’t practice (a) sexism (b) ageism (c) racism.</td>
</tr>
<tr>
<td>• In our group, we have</td>
</tr>
<tr>
<td>(a) Both genders</td>
</tr>
<tr>
<td>(b) Different ages</td>
</tr>
<tr>
<td>(c) Different cultures and language.</td>
</tr>
<tr>
<td>• We try to be inclusive in our action.</td>
</tr>
<tr>
<td>• We want to learn communication skills to be able to work with everyone.</td>
</tr>
</tbody>
</table>

The above poster is on the wall of an ESL classroom.

Excerpt 46: (Data from audio recording. T represents a teacher.)

T: Time to change our groups. Could you please get all your books, anything in your desk. Okay, the criteria then. I want at least two languages. I don’t want any groups with all boys and all girls, at least one boy and at least one girl. Preferably, I want, I don’t want all grade 8s and all grade 11s. So, mix yourselves up in terms of grades as well. But the most important things, I want you to work with people you haven’t worked before. If somebody you haven’t worked before, then that’s the person you’re going to be working with. Okay, now, if you sit down and there’s one group of all girls or one group of all Cantonese speakers, and you don’t mix yourselves up, and I’m going to decide where you’re going to sit. Got that? Ruby.

R: Yah.

T: What did I say?

Excerpt 47: (Data from field notes. T refers to a teacher.)

It’s time to change groups. T numbers students in each group 1, 2, 3, 4. All 1s form a new group, all 2s a group, all 3s a group, and all 4s a group. Students move to sit with members of the new groups. T tells students to check if their groups are exclusive, particularly gender and age. T: “Is your group inclusive? How can you make it better? Is there equity in terms of gender in our group?” T makes some changes with groups.
Excerpt 48: (Data from interactions with students during classroom observation. R stands for the researcher. S refers to a student.)

R: Have you been in this group since September?
S: No. We changed last month. We change every month.
R: Can you choose whom to work with in a group?
S: Yes, but each group needs to have both boys and girls. And there needs to be more than two languages in each group. We have to meet these criterion when forming groups.

The ESL program also had specific expectations of group behaviors in classrooms. Students were instructed to follow patterns of behaviors which were believed to lead to positive cooperative learning experiences. The following posters in Excerpt 49 were found on the wall of an ESL classroom. They highlighted the norms of student behaviors during group work.

Excerpt 49:

<table>
<thead>
<tr>
<th>Prompters for group work</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Take turns.</td>
</tr>
<tr>
<td>• Give encouragement.</td>
</tr>
<tr>
<td>• Ask your group for clarifications when you don’t understand.</td>
</tr>
<tr>
<td>• Offer your help.</td>
</tr>
<tr>
<td>• Listen to the person speaking.</td>
</tr>
<tr>
<td>• Give a smile and nod to the speaker.</td>
</tr>
</tbody>
</table>

• Wait until the speaker is finished before you speak.
• Invite others to give their opinions.
• Share materials.
• Disagree with the person. Don’t put down the person.
• Energize the group.
• Use positive body language.
• Make sure everyone has a chance to speak.

4.3.3 The Educational Culture Chinese Immigrant Students Came From

As the Chinese immigrant students in this research studied at different schools in Taiwan, Hong Kong, and the PRC, it would be impossible to provide a profile of a typical school culture from which all of them came. Rather, this section will deal with the educational culture in
Taiwan, Hong Kong, and the PRC in general, where cooperative learning is taking place or not taking place. This is not to suggest, by any means, that there is a single monolithic Chinese educational culture. On the contrary, there may be considerable diversity between Taiwan, Hong Kong, and the PRC. This section will look for features that may be present in each of these three that might have a bearing on the educational experiences these students brought to Johnson Secondary School. Of special interest are features that could make a difference to the meanings given to classroom cooperation in different cooperative settings and that might sensitize researchers to aspects of students’ views that could be overlooked.

4.3.3.1 Core Pedagogy

Teaching in Taiwan, Hong Kong, and the PRC is primarily the lecture method (Chyu & Smith, 1991; Ogbu, 1995). Conceptually, teachers are assumed to be experts in a content area and are assumed to be well grounded and experienced in the knowledge and skill to be taught. That is to say, they are seen as transmitters of knowledge (Pratt, 1992). At the practical level, “the syllabus is very long and needs to be completed within a limited number of teaching hours. Thus, teachers have to transmit to the students simplified knowledge within the given time for that subject” (Ho, 1997, pp. 23-24).

Accompanying teaching, learning is basically information centered and examination oriented. The information-centered learning is based on the conception that knowledge, or information, is a commodity existing “out there,” external to the learner, and must be acquired from more knowledgeable teachers. The teacher is responsible for delivering knowledge; the learner is responsible for absorbing knowledge (Pratt, 1992). The examination-oriented learning can probably be traced to the pyramidal education system (Gow et al., 1996) existing in Taiwan, Hong Kong, and the PRC, and the public examination approach that accompanies it. Within this
pyramidal education system, fewer and fewer students achieve the next higher level. Which levels students can progress to are solely determined by their examination marks. As a result, the Narrow Gate Syndrome (Chyu & Smith, 1991) becomes a prominent phenomenon among the youth in Taiwan. Students’ lives are dominated by the single drive for getting through the narrow gates of higher level schools. Consequently, academic Darwinism prevails and persists. The high school in Taiwan becomes a site of fierce competition, not so much among students, but between individual students and the education process they are made to accept and endure. Only a small proportion of students who have high marks can survive the process and progress to the university level. In view of the competition for better educational opportunities, students turn to be highly examination oriented (Ho, 1997). The major concern for high school students is to obtain good results in public examinations, as this is the only way through which they can enter universities.

Nonetheless, changes are taking place in pedagogy in Taiwan, Hong Kong, and the PRC. While holding to overriding national values, curriculum has shifted toward more functional, life-oriented objectives. Take Taiwan, for example. Starting from 1975, group activities began to be included in the specific content of the elementary school curriculum and are assigned 80 minutes per week at all six grade levels (Mao & Bourgeault, 1991). In high schools, group educational activities have been given more attention in recent years for the purpose of developing “a well-rounded student” (Chyu & Smith, 1991, p. 124) and of developing in students “feelings of belonging to a group, of cooperation, and of friendship” (p. 137).

4.3.3.2 Structures

Students are generally not grouped according to their abilities in Chinese schools. As Education in Province Taiwan (1982) states, “grouping of students according to their abilities
from the worst to the best in a ladder series—that is, the best students attend the best classes and the second best students, the second best classes, and so on—is strictly prohibited” (pp. 28-29, cited in Chyu & Smith, 1991, p. 123). Students in the same class are of the same grade, and generally of the same age except for those who skip or repeat a grade. Although there is no ability grouping, there is academic channeling for high school students from grade 10 to 12. All students admitted have passed the national high school entrance examination given in grade 9. A very high score on the examination allows a student to attend one of the highest-rated high schools. High schools in Taiwan, like colleges, are rated in order of their quality (Chyu & Smith, 1991).

Class size tends to be large at all levels of education. Secondary school class sizes normally range from 45 to 60 students in the PRC (Dunkelblau, 1996), and 35 to 40 students in Hong Kong (Tsui, 1996). Large class size makes it difficult to adopt such methodologies as small group activities. As a result, students seldom form small groups or pairs in classrooms. As Hudson-Ross and Dong (1990) remarked, students in the PRC elementary classrooms sat “with backbones straight, eyes directly ahead” (p. 115) until being called upon to answer the teacher’s questions or to take out materials to work. Cooperation, operationalized as student interaction, often takes place outside of classroom in study groups or in other after-school groups such as the Young Pioneers in elementary schools in the PRC (Hudson-Ross & Dong, 1990), or extra curricular activity groups in Taiwan. In Taiwan, students are required to join Boy Scouts, Girl Scouts, China Youth Corps, and other groups. Schools and the government pay for students to participate in group activities and excursions, which form an important part of school life outside classroom hours (Chyu & Smith, 1991).
4.3.3 Norms

The Chinese educational culture places the teacher at the center of the educational process. Students are expected to be “paying attention to teachers, respecting and obeying them and cooperating with them” (Cortazzi & Jin, 1996, p. 190). Cooperation is taken to mean cooperation with teachers. As Tsui (1996) noted, secondary school students in Hong Kong “have to stand up to greet the teacher at the beginning and the end of the lesson, and they have to raise their hands and wait for the teacher to call upon them to speak. They also have to stand up when speaking” (p. 147).

There are hidden rules among students as to how they should behave in relation to peers. In a culture that values modesty, Chinese students tend not to show that one is better than others in the class. For instance, Wong’s (1984) research on the effect of sociocultural factors on students’ classroom behavior reported on the following “rules” governing Hong Kong secondary school students’ use of English in class:

1. You should not demonstrate verbal success in English in front of your peers.
2. You should hesitate and show difficulty in arriving at an answer.
3. You should not answer the teacher voluntarily or enthusiastically in English.
4. You should not speak fluent English.
(Cited in Tsui, 1996, p. 157)

4.3.4 Chinese Students Caught in the Mismatch of Two Educational Cultures

In discussing cultural problems in minority education in the United States, Ogbu (1995) wrote the following descriptions about Chinese immigrant students:

The immigrants know . . . what they need to know to achieve the goals of their immigration—such as learning the English language and curriculum and adjusting to the cultural practices of the school . . . they do not necessarily give up their own cultural beliefs, practices, and language, but they strive to learn the rules and customary behaviors and concepts they are not familiar with . . . (pp. 286-287)
What Ogbu did not address is that the business of keeping their own cultural beliefs and practices and learning the mainstream North American cultural beliefs and practices can cause dilemmas for the Chinese immigrant students because these two sets of beliefs and practices may conflict with each other.

From the descriptions in the previous two sections, it appears clear that there are differences in the culture of education between Johnson Secondary School and schools in Taiwan, Hong Kong, and the PRC. Although the ultimate goal is the same, in other words, aim for the welfare of all students, the two cultures come together with contrasting beliefs, concepts, interpretations, and expectations about education and about how learning tasks are done well in the classroom. The typical tasks that students would do in a Chinese classroom do not seem to have the cooperative learning features as did the tasks in Johnson Secondary School ESL classrooms. They are likely to be done individually or in the whole class. Students are unlikely to interact with each other.

As mentioned earlier in this chapter, much work on cultural issues of second language education mentions that Chinese students come from a collectivistic culture, which holds cooperation as a social value almost exclusively. The underlying belief is, as Leung (1996) explained, that

the futures of individuals from the same in-group are inter-related and that each person’s well-being depends upon the results of collective effort. If each person follows the norms of the group and acts in the interests of the group, the group will be harmonious and prosperous. (p. 258)

The concept of the individual as part of a larger group is reinforced through education. Students are required to follow set patterns of behavior and collectively oriented mores of social interaction. Although individual talents are encouraged, a student “is always made aware that his place in society is subordinate to his family, his school, his province, and ultimately his
civilization” (Chyu & Smith, 1991, p. 108). Socialized into the cooperative and collective culture from a very young age, it is not surprising, then, that the Chinese immigrant students in this study felt comfortable with the cooperative learning concept held by Johnson Secondary School and liked the positive outcomes of group work in ESL classes.

However, the way that cooperation functions in Chinese classrooms differs from the way it functioned in Johnson’s ESL classrooms in two respects. One marked difference reflects the contrast between collectivist ethic and individualistic ethic (Carson & Nelson, 1994). In the individualistic ethic, the function of groups is more often to benefit the individual than to benefit the group. Individuals thus treat the group as an arena for seeking private good. As stated in Johnson’s ESL Handbook, both weaker and advanced students would benefit from cooperative learning for their own good. In the collectivist ethic, on the other hand, working toward individual good contributes to a common good. Students in Chinese classrooms thus “learn through cooperation, by working for the common good, by supporting each other, and by not elevating themselves above others” (Nelson, 1995, p. 9). They are expected to “maintain the relationships that constitute the group, to maintain cohesion and group harmony among the group members” (Carson & Nelson, 1994, p. 20).

Another marked difference relates to the purpose of groups (task vs. identity), the length of time students belong to a group (short vs. long periods) (Nelson, 1995), and the location of group work (inside vs. outside class). In Johnson Secondary School, group work occurred in class. The Chinese immigrant students moved from one class to another and were in groups with different students in different classes. Students in the same group came from different schools back in Taiwan, Hong Kong, and the PRC, and even spoke different dialects (e.g., Mandarin and Cantonese). Besides, groups changed once a month, or when classes started a new project. Group membership was short-term. In Chinese schools, students stay in the same class for all the years
they attend a particular school, and maintain constant group membership that defines their identity (e.g., being a student of Class 3 in Grade 9). Group work, in terms of studying together with others, seldom happens in class. As Cortazzi and Jin (1996) noted, learning from others or learning with others occurred outside class time, when the teacher was not available for help and those students who had understood the teacher and who were willing acted as the teacher and helped others. This observation is supported by Flowerdew's (in press) observation of Hong Kong university students. She found that it was a common practice for her students to set up student-initiated groups to help one another outside classroom hours. These findings may explain why the Chinese students in the study felt uncomfortable about working in groups in ESL classes.

Thus it is possible that the Chinese immigrant students' prior knowledge and experiences of groups were incongruent with their present knowledge and experiences of groups. They were perhaps caught in the mismatch of the two educational cultures. The understandings they held and the meanings they constructed for their everyday cooperative learning activities in ESL classes may have arisen from the lack of connections between the school culture of the Canadian high school and the educational culture they came from.

4.3.5 Dilemmas Arising From Conflicts of Socially and Culturally Shared Values

In her discussion of dilemmas of family money management, Lave (1988) proposed that dilemmas "grow out of contradictory values" (p. 134). This perception of dilemmas arising from conflicts of values was also expressed by Billig and his colleagues (1988). In their collective work, they presented the argument that "in . . . dilemmas, socially shared . . . values can be seen to conflict. It is this conflict which produces the difficulty of the dilemmas. In fact, without the conflict of values the dilemma could not occur in social life" (p. 14). Regarding the Chinese
immigrant students coming from an educational culture different from the Canadian high school culture, to suggest that the dilemmas they encountered with cooperative learning in ESL classes arose from conflicts of culturally shared values would probably be too simplistic. For them, cooperative learning dilemmas appeared to have two layers of complexity, one cultural and one ideological (i.e., social).

If ideology is dilemmatic, as Billig et al. suggested, there should be dilemmas about values and commonsensical beliefs within Chinese society. Indeed, contrary themes have been observed in Chinese people’s everyday thinking. One example is collectivism and individualism. In his discussion of the psychological transformation of the Chinese people, Yang (1996) noted the decrease of Chinese traditionality and the increase of modernity. As a result of societal modernization, Chinese people tend to be less socially oriented and more individually oriented. Yang’s review of empirical research on Chinese people’s psychological change revealed that young college graduates in Taiwan rated lower the factors of collective benefits such as serving the society and helping others, and higher the factors of intrinsic reward such as self-growth and progress and of extrinsic reward such as social status, power, and wealth (Wang, 1994, as cited in Yang, 1996). Among college students in Taiwan, there were three trends of value change, one of which was increased individualistic consciousness (P’ang, 1989, as cited in Yang, 1996). Yang stated that he did not believe that collectivism will eventually be replaced by individualism. Rather, he considered that “some collectivistic and individualistic characteristics may coexist in persons in a modern society” (p. 492).

Collectivism and individualism are conflicting value systems, which, in the view of Billig et al., function as preconditions for dilemmas. The coexistence of collectivistic and individualistic values in Chinese ideology may operate as an explanation for the contradictory results of Chinese students’ preferences or non-preferences of group work reported in research.
literature. Reid's (1987) study found that Chinese students did not prefer group work. Paralleling Reid’s finding, Stebbin's (1995) research also found no evidence of Chinese students’ preference for group learning. However, a very different picture comes out from some other research. In a replication of Reid's study, Rossi-Le (1995) reported that Chinese adult immigrant students showed a preference for group learning. Dirksen (1990) also fond that 68% of her 1,076 university students in the PRC indicated that they liked to study with others for examinations. To date, this study is probably one of the few to have reported on the same group of Chinese students who liked and disliked cooperative group work simultaneously.

Another example of coexisting opposing themes in Chinese ideology is the concepts of insider (zijiren) and outsider (wairen) in Chinese communication processes (Gao, Ting-Toomey, & Gudykunst, 1996). Insiders are members of an in-group. The most important in-group is the family. In a social circle, insiders include friends with whom one has established a special relationship. In organizations, people on the same hierarchical level may be considered insiders, such as students in the same class. In-groups to which insiders belong “often serve as the primary and continuing units of socialization for the individual” (p. 287). Outsiders are members of an out-group, consisting of strangers. The distinction between insiders and outsiders is believed to help the Chinese position themselves in different relational circles, and keep special rules of interaction in communication.

Regarding the Chinese immigrant students’ cooperative behavior during group work, it could be that these students considered their group members as insiders or members of an in-group now that they were all learning a second language at a new school in an unfamiliar country. The definition of an in-group could shift with the situation (Carson & Nelson, 1994). If the Chinese students perceived their group members as having a common fate (e.g., stuck in the ESL program and anxious to get out) and working toward a common goal (e.g., trying to get
integrated into mainstream classes as soon as possible), they would act with corresponding helping and supportive behavior because “insiders share a sense of unity and interdependence” (Gao et al., 1996, p. 288).

As for the Chinese immigrant students’ non-cooperative behavior in group work, it could be that these students considered their group members as outsiders or members of an out-group because the groups in ESL classes, as discussed earlier in this chapter, were not classroom groups in the sense that these Chinese immigrant students were familiar with. If the Chinese immigrant students perceived their group members as outsiders belonging to an out-group consisting of competitors for teachers’ positive recognition and hence possible earlier exit of the ESL program, they would act with corresponding antagonistic behavior. As Carson and Nelson (1994) put it, “the dynamics of out-group relationships for ESL students from collectivist cultures may result in behavior that is hostile, strained, and competitive—behavior that is likely to work against effective group interactions” (p. 17).

Coexisting opposing themes in Chinese social values such as collectivism and individualism may be a possible explanation for the Chinese students’ preferences and non-preferences of working in cooperative learning groups, and in-group and out-group relations may be a possible explanation for their cooperative and non-cooperative discourse during group activities. Note that most of the students in this study were from Taiwan and Hong Kong, which may vary, to some degree, with regard to conflicting social values such as collectivism and individualism, and in-group and out-group membership. Chinese social values are not the only possible explanations for the attitudes and actions of these students. There are, of course, various other possible explanations, such as power relations between teachers and students where non-cooperation and mis-cooperation may be seen as student resistance to the teacher. Although these
possible explanations would be interesting and important to investigate in future research on cooperative learning, they have not been addressed in this study.

A possible explanation of Chinese immigrant students' mis-cooperation during group work can be for practical reasons. They needed to complete the work within a limited time. In other words, they were under time pressure. They did not have the time to discuss, to reason, and to develop high-order thinking skills. As part of the learning process, students need to accomplish practical learning tasks set up by the teacher, which require getting the job done through whatever methods that work best. But these practical considerations inevitably have ideological bases, which define what the job actually is and how to do it. In a series of cross-sectional and longitudinal studies with polytechnic students in Hong Kong (cited in Gao et al., 1996), it was noted that motivation, enthusiasm, interest in study, and even competitive drive all declined from the first to the third year. Students narrowed their focus of studies to what was specifically set out in the curriculum and considered it unnecessary to demonstrate any additional learning. In the case of the Chinese immigrant students in the current study, if they perceived learning in the ESL program as additional to what was needed instead of preparing for the mainstream classes, and if they perceived group tasks in ESL classes as to get the job done rather than to share understandings, then they would probably consider it unnecessary to adopt more time-consuming study approaches and to pay attention to the processes of learning.

In their work on ideological dilemmas, Billig and his associates (1988) also pointed out that dilemmas about values and commonsensical beliefs are not confined to any particular society. In fact, they believe that ideologies of all societies possess contrary themes. To follow the same line, this study does not claim that dilemmas of cooperative learning are confined to Chinese immigrant students or even ESL students from other cultural groups. They can confront native English speaking students as well. Reid’s (1987) crosscultural study on learning style
preferences found that students who spoke English natively rated group work lower than did all other nine cultural groups. Based on these findings, one might assume that these students would probably prefer working individually. What is interesting to note is that they did not show a strong preference for individual learning either, although they rated individual learning slightly higher than did other groups. These findings about English speaking students’ low preference for group work and low preference for individual work seem to be in conflict, which may in fact indicate the dilemmas of student preferences for group and individual learning.

Hence, it may be inferred that, at the ideological or social level, cooperative learning dilemmas appeared to grow out of conflicts of socially shared values and commonsensical beliefs. At the cultural level, the mismatch between the Chinese immigrant students’ home educational culture and their present Canadian high school culture seemed to add another layer of complexity to the already existing dilemmatic situation of cooperative learning in ESL classes.
CHAPTER 5:

COOPERATIVE LEARNING GOALS: A COMPLEX KNOT OF DILEMMAS

This chapter presents the findings for research question two: What are the dilemmas, if any, that Chinese immigrant students encounter regarding the cooperative learning goals of developing academic language proficiency in L2, maintaining L1, and acquiring content knowledge? It addresses the issue of whether all three goals claimed for cooperative learning in second language education can be achieved simultaneously all of the time by beginning with the question of language choice. Section 5.1 presents the interview data on how the Chinese immigrant students in this study perceived cooperative learning goals, in particular the goals of L1 maintenance and L2 development. Section 5.2 exhibits the observation data on the functions of L1 and L2 discourse regarding L2 development and content learning produced by Chinese immigrant students during group work in ESL classes. Section 5.3 discusses the findings reported in sections 5.1 and 5.2 with particular reference to Cummins' (1991a, 1991b, 1992) bilingual proficiency theory, a possible theoretical model of how the above three cooperative learning goals are related.

5.1 Mixed Feelings About L1 and L2 Use

Second language education literature holds that cooperative learning provides more opportunities for student talk in both the second and the first languages. How did the Chinese immigrant students perceive L1 and L2 talk in ESL classes? How much English did they think they spoke in class? Under what circumstances did they tend to speak their first language? For what reasons did they use their first language? These were some of the questions included in the interviews with 49 Chinese immigrant students in the current study.
Of the 49 Chinese immigrant students, nine students (18%) said that they spoke English in ESL classes most of the time. Thirty-eight students (78%) reported that they did not speak a lot of English in ESL classes. Two students (4%) considered that they spoke almost no English in ESL classes. All 49 students, without one exception, stated that they sometimes spoke their first language in ESL classes. A close examination of interview responses with the inductive analysis method (McMillan & Schumacher, 1993) reveals that these Chinese immigrant students had mixed feelings about L1 and L2 use during group work. They knew when they tended to speak Chinese in groups. They gave reasons why they spoke Chinese among each other. However, at different times during the interviews, they expressed their wish to speak more English and no Chinese at all in ESL classes.

5.1.1 Circumstances for Speaking L1 in ESL Classes

When asked under what circumstances they spoke their first language in ESL classes, 37 of 49 Chinese immigrant students reported that they tended to speak Chinese when requesting or offering help about teacher instructions, school work, the English language, and subject matter. Twenty-three students said that they also tended to speak Chinese when socializing.

5.1.1.1 Requesting or Offering Help About Teacher Instructions

Some Chinese students stated that when they did not understand or had questions about what the teacher had said, they would ask their group members in their first language, and the group members would explain to them also in their first language. Below are a few quotations from the interviewees:

* When I ask questions about what the teacher just said. If I don't know how to say it in English, I will say it in Mandarin.
* When others in the same group don't quite understand what the teacher says and ask me in Mandarin, I answer and explain in Mandarin.
* Like, for example, there are some student cannot understand the teacher is saying, so I have to explain in Mandarin... Sometimes I cannot explain in English. I know that means, but I just can't tell.

5.1.1.2 Requesting or Offering Help About School Work

Some Chinese students said that they used their first language to talk about class assignments and homework, for example, what they needed to do, how they should do it, and who was going to do what. The following interview excerpts are a few examples of such comments:

* Sometime talk about the topic, the homework, the class work that the teacher give us.
* Sometimes, talk about homework... We sometimes ask other people how to do it, or what we have to do, or what's your idea.
* [We] talk about who, who's going to do what.
* Talk about the work we do, and what can we do next.

5.1.1.3 Requesting or Offering Help About the English Language

Some Chinese students reported that they used their first language to ask about words they did not know in English, things they did not know how to express in English, and the meanings of some English words. Some extracts from the interviews follow:

* When I don't know how to say something in English during group discussion, or when I don't know some vocabulary.
* When I can't express myself, I speak Mandarin.
* When I not understand the meaning of that word, so I ask my friend what's that word mean.
* Most of time I use Mandarin or Cantonese when I ask about the words I don't know.

5.1.1.4 Requesting or Offering Help About Subject Matter

Some Chinese students claimed that they used their first language to ask for help when they did not understand the subject matter of what the teacher was talking about, of the questions
they were writing answers for, and of the essay they were going to write. Below are some examples of such comments:

* When I don't understand the content of what the teacher is saying . . . . I'll ask my classmates.
* Sometimes, it's when I don't understand my studies . . . . Sometimes the teacher asks us to write essays. If I don't know about a topic, I'd ask others. they'd explain in Mandarin.
* Take the science class for example, we'd talk if my classmates have some questions or if I have some questions. If their English is not very good and don't understand the reading, I'd explain to them. If they don't understand the questions, how can they answer them?
* When we do something in a group and then we don't understand of that thing, maybe we'll use our own language to talk about it.

The use of the mother tongue in the classroom is a learner-preferred strategy recognized in recent research, especially with beginner and pre-intermediate students. In a list of strategies for using L1 to facilitate communication in the classroom, Harbord (1992) included, among others, (1) L1 explanations by students to peers who have not understood, and (2) student-student comparison or discussion of work done. These strategies, especially the former, were natural tendencies that occur in the classroom without encouragement from the teacher. With specific reference to Chinese learners, Flowerdew and Miller (1995) reported that most of Hong Kong university students in their focus group stated that they would ask their classmates if they had any problems understanding lectures. Indeed, these students were observed helping each other during lectures by explaining in Cantonese points their classmates had difficulty in understanding. This peer assistance reached such a high level in lectures that a number of Western lecturers, not knowing what was being communicated, thought that the students were inattentive and chattered too much.
5.1.1.5 Socializing

Although the Chinese students used their first language, as one student stated, “mostly about the class,” they admitted using them to “chat a little once in a while” when socializing. The following interview excerpts give some examples of what students socialized about in their first languages:

* Then when we talk about social things, we would speak Mandarin.
* Sometimes, like talk to a Cantonese in Cantonese. Like anything, like television, movie star, like that.
* And sometime talk about personal things.
* Or, talking about something like joke.
* . . . or talk about things not taught in that class or about things outside class, for instance, computer games.

5.1.2 Reasons for L1 Use in ESL Classes

When asked why they spoke their first language in ESL classes, the Chinese students gave the following reasons: it was faster and easier to use their first language; they did not have enough English; they were used to speaking Chinese; and they felt peer pressure not to speak Chinese.

5.1.2.1 Faster and Easier to Use the L1; Difficult and Hard to Use the L2

A major reason for Chinese students’ use of their first language in the ESL classroom seemed to be for speed and convenience. Thirty students responded that it was easier, faster, and more convenient to get the meanings in English across to them through the bridge of their native tongue. They felt that it was difficult to speak English. The following quotations expressed the view of many students in the study:

* When I have a problem, I want to learn something quickly, I will ask my friend in Chinese. Like I don’t need to translate it in English and tell them and they speak English to me.
* We write in English, but discuss in Mandarin. It’s faster, more convenient, easier to understand, and better.
* Because I think English is hard to express what we mean. It’s too hard, difficult to say. I speak Cantonese is easy to express what I’m saying. They can understand.
* Maybe it’s more comfortable and offhand. You don’t need to use your brain to think. It would come out itself. You need to think if you speak English, for instance, the past tense, the present tense, a lot of things. You need to think about them. It’s troublesome.

Recent research has provided an explanation for beginning L2 learners’ frequent switch to their L1. Poulisse and Bongaerts (1994) found that ESL students’ use of L1, particularly L1 lexical items, was related to their proficiency level in English. When L1 words were of a much higher frequency than the corresponding L2 words, beginning learners tended to switch more often to L1 words. As L2 learners’ English proficiency increased, the frequency of their switch to L1 lexical items decreased.

5.1.2.2 Not Knowing Enough English

A related reason the Chinese students gave for their use of Chinese in ESL classes was that they did not know enough English. Twelve students felt that they did not have enough vocabulary to explain or express themselves clearly in English without causing some confusion and misunderstanding. The interview excerpts below illustrate these students’ point:

* Something I had to explain in English, and I didn’t know how to explain in English, so, I’ll use my own language, [because of] the vocabulary.
* Our English is not good, we might misunderstand each other in English. In Cantonese, the message is sure to be understood.
* Maybe in English I cannot express what I think.
* If we use English, sometime you very confuse talking. Maybe you can’t really mean what you are talking.

As all Chinese students in this study were entirely or partially enrolled in the ESL program (except for math and physical education), they still had difficulties expressing
themselves freely in English, though to differing degrees. Consequently, they frequently fell back on their first languages for help.

5.1.2.3 Being Used to Speaking the L1; Feeling Strange Speaking the L2 to Compatriots

Another reason the Chinese students gave for using their first language in ESL classes was that they were accustomed to speaking Chinese to each other. Fifteen students said that they felt strange, unnatural, awkward, or uncomfortable speaking English to their group members whose mother tongue was the same as theirs. In the words of these students:

* I'm more used to speaking Mandarin. I speak Mandarin at home. When I was in Taiwan, I spoke only Mandarin. It takes a while to get used to [speaking English].
* Maybe it's a natural instinct. We're so used to speaking Mandarin because almost all the people around you are from Taiwan. You feel like you're still in your own country, so you speak Mandarin to them.
* Just, it feels really stupid when you talking to Hong Kong people and you use English. . . . It feels really strange.
* It's not natural to speak English to other Taiwanese. We are all Taiwanese.
* It's strange, uncomfortable to speak English to other Taiwanese.

5.1.2.4 Peer Pressure

Peer pressure was another reason Chinese students gave for their use of Chinese in ESL classes. Seven students explained that they spoke Chinese because everybody else in the group did. They did not want to be different. Below are two examples of such sentiment:

* Because all friends want to speak in Chinese, I have to go with them.
* Everybody else speaks Mandarin, it won't do if you don't. . . . So you have to speak Mandarin. It's better that way.

When further asked if they felt peer pressure to speak English in ESL classes, 26 of 49 students (53%) said yes. These students described the kind of peer pressure they experienced. It fell into four categories. First, some Chinese students said that they did not speak much English
in groups because they were afraid of being thought of as showing off, especially when they were with friends whose English was not particularly strong. As they put it:

* When you are with your friend, and friend’s English is not that good, and you speak [English] to them, and they think you are show off . . . like try to show your English is good and their English is not good.

* When you are in a class with many people from Taiwan and you speak English all the time, some people would consider that you are conceited and think your English is very strong. . . . Then others would say Stop showing off.

Goldstein’s (1997, in press) work on Cantonese-speaking immigrant students’ use of first and second languages in a Canadian summer school secondary math class reported similar results. Students spoke a lot of Cantonese with each other in class. As the example of student interaction in her work shows, the only English words spoken were words associated with the math problems under discussion and teachers’ names. These students reported that their fellow Cantonese-speaking students would think they were trying to boast about their English abilities if they spoke to them in English. For them, using English with other students from Hong Kong was associated with showing off.

Modesty and humility is a social value highly encouraged in Chinese culture. To grow up Chinese, one learns not to be boastful in any situation (Gao et al., 1996). This concern for humility has been found to be counter-productive in language learning situations. Flowerdew (in press) found that her Hong Kong university students downplayed their performance by saying “I didn’t prepare well” when it was obviously not the case. Flowerdew and Miller (1995) remarked that Hong Kong university students had a rather negative attitude toward participation during lectures and were reluctant to give opinions because they considered it inappropriate to shine in front of their peers. If they asked or answered a question voluntarily, they would be seen by their peers as showing off and would become an outcast. In discussing student reticence and second language learning anxiety, Tsui (1996) pointed out that “the anxiety generated by trying not to
show that one is better than the rest is . . . serious among Chinese students, whose culture emphasizes modesty” (p. 157). She noted that one of the hidden rules governing the use of English among some Hong Kong secondary school students was that one should not demonstrate verbal success in English in front of one’s peers.

The second type of peer pressure that Chinese immigrant students described as a reason for them not to speak much English in groups was that they were afraid of making mistakes in front of others and getting laughed at. This concern was expressed by not only those who felt they did not speak well, but also those who wanted to speak English in groups. The following are two quotations from the interviewees:

* Because I don’t speak well, I’m afraid I might make mistakes and be laughed at by others.
* Sometimes you speak English to them and you yourself don’t know some vocabulary and pronunciation. They’d laugh if you make mistakes. They’d say you yourself don’t speak English well. Then why do you speak English?

Excerpt 50 below is from audio-recorded observation data, which illustrates what students meant by getting laughed at by their peers. Student 3 of Group 3 asked students in Group 1 to explain why they considered Group 3’s answer incorrect. Student 1 of Group 1 tried to explain, but did not finish, apparently because he had difficulty explaining in English. Student 3 made a remark about Student 1’s English that would probably put many students off.

**Excerpt 50:**

S3.3: [To Group 1] Explain.
S1.1: Er, you said . . . [stumbling]
S3.3: [Ironically] Oh, yeah, you can speak English. You speak very well.

Chinese students’ anxiety about making mistakes and being scolded by peers has been documented in recent research literature. Exploring Chinese students’ expectations of good teachers and students, Cortazzi and Jin (1996) noted that a major reason their 135 university students in the PRC gave for not asking questions in the classroom was that they were afraid of
making mistakes and being laughed at by other students. Dunkelblau's (1996) 13 graduate 
students in a Chinese teachers' university explained that speaking out in class was a challenge for 
secondary school students because they did not want to make mistakes in public and risk censure 
from their peers. Tsui's (1996) 38 secondary school teachers enrolled in a graduate teacher 
education program at a Hong Kong university conceived that a major contributing factor to 
student reticence was students' fear of making mistakes and being laughed at and ridiculed. 
These findings point to a common factor that Chinese students do not want their peers to laugh at 
their mistakes because they will lose face in the classroom. This concern for face is regarded as 
being linked to the relational nature of self in Chinese culture (Gao et al., 1996). For Chinese 
students, to have face "represents the confidence of society in the integrity of ego's moral 
character" (Hu, 1944, p.45, cited in Gao et al., 1996, p. 289). To lose face would make it 
impossible for them "to function properly within the community" (Hu, 1944, p.45, cited in Gao 
et al., 1996, p. 289).

Third, some Chinese students remarked that they did not speak much English in groups 
because of resistance from Chinese peers, who would openly object to their speaking in English. 
Even if they spoke English, their peers would speak back in Chinese, or simply ignore them. As 
students described in the interviews:

* Sometimes we speak English to the people from our own country, . . . they will say 
  "Don't speak English. Don't you speak Mandarin?" Or we speak English to them, but 
  they all speak Mandarin.
* If I speak English a lot in classroom . . . they just ignore you when you talk to them.
* If you cannot talk very fluently, the other person might not really interested in 
  listening, because they have to . . . be patient and pay much attention.

Similar concern has been noted in earlier research. In her work on Hong Kong secondary school 
students' reticence in second language learning, Tsui (1996) reported on a teacher's survey with 
her Secondary Two (Grade 8) students. Of the 40 students in the class, 88% responded that they
had no incentive to speak in English because, among other reasons, their classmates did not speak in English either.

The fourth type of peer pressure that Chinese students described as a reason for them not to speak much English in groups was that they did *not want to be excluded from the Chinese peer groups*. Their friends all spoke Chinese and they did not want to be disliked by their peers for speaking English. They wanted to be the same as their peers so that they could stay together with them. In the words of these students:

* But we are friend. If we speak English . . . , they don’t like it, because we are Chinese.
* When they speak Cantonese and I speak English, . . . they hate me . . . . They don’t like me. And I think speak Cantonese will be better . . . . you can . . . . be together with them.
* My first day in Johnson, I tried to speak English, but they all speak in Mandarin. Then I gradually speak Mandarin, the same as them.

High school students are teenagers with their own values, standards, and agendas. Their friendships with their peers are a particularly important part of their lives in school. In their case study of organizational culture in a high school, Mitchell and Willower (1992) noted that English speaking students frequently mentioned the importance of their friends in the interviews. Some students even said that the social life was the most important part of the school. They spent most of their time before classes, between classes, and during lunch talking with friends.

Similar findings were mentioned in Kanno and Applebaum’s (1995) study on three Japanese secondary-level students’ ESL experiences in North American schools. For these students, searching for a viable peer group was an important agenda. When entry into a native-English-speaking students’ peer group was not deemed feasible because they were taking ESL courses and English-speaking students were taking mainstream courses, they turned to students of the same ethnic origin for friendship. Once they decided to seek company of fellow
compatriots, learning English could become peripheral to them. They could minimize their use of English for the membership of a compatriot peer group.

Goldstein (1997, in press) found that her secondary-level Cantonese-speaking immigrant students’ use of English with other Cantonese-speaking classmates was associated with academic and social risks. It could jeopardize their access to assistance from their Cantonese-speaking peers. It could even cost them their friendship with their Cantonese-speaking peers.

5.1.3 Comments on L2 Development in ESL Classes

The Chinese immigrant students admitted speaking their first language in ESL classes under certain circumstances and gave reasons for why they did so. Yet, at different times during the interviews, they indicated that they wanted to speak more English in class. They did not want to speak Chinese.

5.1.3.1 Wanting to Speak More English in Class

When asked what suggestions they would give to new ESL students, many Chinese students made some comments that reflected their own wish of speaking more English in class. Below are some extracts that expressed such sentiment:

* Try your best to speak English. Don’t care what others say about you.
* Better not let too many people know that you speak Chinese, so that others will speak English to you and you won’t feel pressure when speaking English.
* Hope not to get too many Taiwanese. There were also Taiwanese in the previous school I went, but not so many. We spoke a lot of English among us. It was better.
* Speak more English. Try to [stay] close to the other country people.
5.1.3.2 Not Wanting to Speak Chinese in Class

When asked what suggestions they would give to new ESL students, many Chinese students also made some comments that reflected their own wish of not wanting to speak their first language in ESL classes. They said:

* Try your best not to speak your first language. Speak more English.
* Speak less other languages, like Cantonese. Speak more English.
* Don’t speak Chinese in class.
* Don’t get too close with people from your country. Getting too close with them will reduce a lot of opportunities for speaking English.

The interview results discussed in sections 5.1.1, 5.1.2, and 5.1.3 are summarized in Appendix 3. There is evidence that many students expressed conflicts of one kind or another regarding the use of L1 and L2. Whereas all 49 students said that they tended to speak Chinese in ESL classes and gave reasons for why they did so, 23 (47%) recommended speaking more English, and 9 (18%) recommended not speaking Chinese. Taking these two recommendations together, 27 of the 49 students (55%) recommended one or the other. While these 49 Chinese students ranged from age 13 to 18, their mixed feelings about speaking English and Chinese in ESL classes did not appear to be representative of any particular age group; in other words, students of all ages in this study expressed mixed feelings.

5.2 Differences in Functions of L1 and L2 Discourse

As mentioned in chapter 2, second language education literature maintains that cooperative learning provides more opportunities for L2 development, L1 maintenance, and content acquisition. Regarding the Chinese immigrant students in the current study, what type of L1 and L2 discourse did they produce in groups? How was their L1 use helpful to their L2 development? How was their language learning integrated with their content learning?
Observation data obtained through audio recording show that the Chinese students did produce a lot of talk in both L1 and L2 when working in groups during ESL classes. They switched between English and Chinese freely and frequently. A code-switching analysis of intersentential (i.e., between sentences) rather than intrasentential (i.e., within sentences) switching between the two languages suggests that there were differences in the functions of their L1 and L2 discourse.

When L1 and L2 discourse was analyzed separately according to the four functional analytical categories of social needs, controlling, informing, and reasoning described by Staab (1986) (see Figure 15 and the following figures, in which the numbers in each cell indicate discourse produced for each corresponding functional category in terms of words), it was found that the most used function in L1 was informing (39%) and the least used function in L1 was reasoning (16%). Whereas the most used function in L2 was also informing (70%), the least used function in L2 was social needs (4%).

![Figure 15: LI and L2 Use in Relation to Social Needs, Controlling, Informing, and Reasoning Language Functions (L1 & L2 Calculated Separately)](image)

<table>
<thead>
<tr>
<th></th>
<th>Interpersonal</th>
<th>Ideational</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Social needs</td>
<td>Controlling</td>
</tr>
<tr>
<td>L1</td>
<td>594 25%</td>
<td>481 20%</td>
</tr>
<tr>
<td>L2</td>
<td>80 4%</td>
<td>281 14%</td>
</tr>
</tbody>
</table>

When L1 and L2 discourse was calculated together using Staab’s (1986) four language functions (see Figure 16), it was found that the most used function was informing in L2 (32%) while the least used function was social needs in L2 (2%). The L1 was used for social needs (14%) seven times more than L2 (2%).
Figure 16: L1 and L2 Use in Relation to Social Needs, Controlling, Informing, and Reasoning Language Functions (L1 & L2 Added Together)

<table>
<thead>
<tr>
<th></th>
<th>Interpersonal</th>
<th>Ideational</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social needs</td>
<td>Controlling</td>
<td>Informing</td>
<td>Reasoning</td>
</tr>
<tr>
<td>L1</td>
<td>594</td>
<td>928</td>
<td>363</td>
</tr>
<tr>
<td>L2</td>
<td>80</td>
<td>1412</td>
<td>253</td>
</tr>
<tr>
<td>Total</td>
<td>674</td>
<td>2340</td>
<td>616</td>
</tr>
</tbody>
</table>

Figure 17 shows that when L1 and L2 discourse was calculated together, there was more L1 and L2 discourse for ideational functions (67%) than for interpersonal functions (33%) on the whole. Figure 18 shows that when L1 and L2 discourse was analyzed separately, L1 was used slightly more for ideational function (55%) than for interpersonal functions (45%), while L2 was used much more for ideational functions (82%) than for interpersonal functions (18%).

Figure 17: L1 and L2 Use in Relation to Interpersonal and Ideational Language Functions (L1 & L2 Added Together)

<table>
<thead>
<tr>
<th></th>
<th>Interpersonal</th>
<th>Ideational</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>1075</td>
<td>1291</td>
<td>2366</td>
</tr>
<tr>
<td>L2</td>
<td>361</td>
<td>1665</td>
<td>2026</td>
</tr>
<tr>
<td>Total</td>
<td>1436</td>
<td>2956</td>
<td>4392</td>
</tr>
</tbody>
</table>

Figure 18: L1 and L2 Use in Relation to Interpersonal and Ideational Language Functions (L1 & L2 Calculated Separately)

<table>
<thead>
<tr>
<th></th>
<th>Interpersonal</th>
<th>Ideational</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>1075</td>
<td>1291</td>
<td>2366</td>
</tr>
<tr>
<td>L2</td>
<td>361</td>
<td>1665</td>
<td>2026</td>
</tr>
</tbody>
</table>

However, of the 67% L1 and L2 discourse for ideational functions (see Figure 17), only 20% was for reasoning whereas the rest, 80%, was all for informing (see Figure 19). While both L1 and L2 were used more for informing (see Figure 20), L2 discourse was used more for informing (85% of the total L2 for ideational functions) than L1 discourse (72% of the total L1 for ideational functions). Similarly, L1 discourse was used for reasoning more than L2 discourse;
L1 discourse was used twice as much for reasoning (28% of the total L1 for ideational functions) as L2 discourse (15% of the total L2 for ideational functions).

Figure 19: L1 and L2 Use in Relation to Informing and Reasoning Language Functions (L1 & L2 Added Together)

<table>
<thead>
<tr>
<th></th>
<th>Ideational</th>
<th></th>
<th>Reasoning</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Informing</td>
<td>Reasoning</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L1</td>
<td>928</td>
<td>363</td>
<td>12%</td>
<td>1291</td>
<td>44%</td>
<td></td>
</tr>
<tr>
<td>L2</td>
<td>1412</td>
<td>253</td>
<td>8%</td>
<td>1665</td>
<td>56%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2340</td>
<td>616</td>
<td>20%</td>
<td>2956</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

Figure 20: L1 and L2 Use in Relation to Informing and Reasoning Language Functions (L1 & L2 Calculated Separately)

<table>
<thead>
<tr>
<th></th>
<th>Ideational</th>
<th></th>
<th>Reasoning</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Informing</td>
<td>Reasoning</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L1</td>
<td>928</td>
<td>363</td>
<td>28%</td>
<td>1291</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>L2</td>
<td>1412</td>
<td>253</td>
<td>15%</td>
<td>1665</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

5.2.1 Functions of L1 Discourse

As Shown in Figure 18, the Chinese students’ L1 discourse produced during group work was used for ideational purposes (55% of the total L1 discourse identified with interpersonal and ideational categories) as well as for interpersonal purposes (45%). This section discusses these functions qualitatively as they occurred in utterances in discourse sequence.

5.2.1.1 Using L1 for Interpersonal Purposes

The Chinese students in the current study were observed using their first language for interpersonal purposes. They switched to Chinese when chatting about school and social life in Canada and in their home country. The following are a few examples of such use of L1 among Chinese students in groups.
Excerpt 51: Talking about tests in the Canadian high school.

S1: *Hey, I'm having tests next week.*
S2: *I have tests next week, too.*
S3: *I also have tests next week.*
S2: *I have regular science and math.*
S3: *Regular science?*
S1: *I have science, too.*
S2: *I have to read over a hundred pages for chemistry.*
S3: *Oh.*
S1: *For chemistry? Why?*
S2: *Four chapters together.*

... S3: *How annoying.*

Excerpt 52: Talking about after school activities in Canada.

S2: *What do you do there?*
S3: *Listen to songs.*
S1: *Is it the final today?*
S3: *That's right.*
S2: *How many people? Ten?*
S3: *Don't know how many.*

... S3: *[To 2] Do you want to go with me. Let's go together.*

Excerpt 53: Talking about math grades in Taiwan.

S2: *What did you have for math?*
S1: *You mean here?*
S2: *I mean in Taiwan.*
S1: *In Taiwan?*
S2: *C is okay. C is all right. A, B, C.*
S1: *Oh, right. We had Excellent.*
S2: *That equals to A...*
S1: *I had Excellent for almost every subject, except math. My math was messy.*
S2: *I thought so.*
S1: *I didn't do well in several tests and fell behind. My class was very strong in math.*
5.2.1.2 Using L1 for Ideational Purposes

In addition to using L1 for interpersonal purposes, the Chinese students were observed using their first language for ideational purposes. They used Chinese to help themselves learn English. They also used Chinese to help themselves learn content knowledge for subject matter.

**Using L1 to learn L2.** The Chinese students used their first language to work out spellings of English words, English equivalents of Chinese words or Chinese equivalents of English words, and conceptual meanings of English words and phrases.

The following excerpts are some typical examples of Chinese students using their first language to work out spellings of English words. When there were different opinions, the discussion was usually carried out in Chinese, except the part of English words and their spellings.

**Excerpt 54:**

S1: *How do you say sugarcane?*
S2: *Sugarcane?*
...
S1: Sugar, sugarcane, oh!
...
S2: How do you spell it? ... S, u, g, a, r, c, a, n.
S1: *I write c, a, n, e. I think there should be an e.*

**Excerpt 55:**

S4: *How do you spell Martial Law?*
S1: M, a, r, t, i, a, l. Martial Law restriction.

**Excerpt 56:**

S2: *How do you spell assault?*
S1: A, s, s, u, l, t.
Excerpt 57:

S2: *How do you spell court?*
S1: Mm?
S2: Court?
S1: C, o, u, r, t.
S2: *How do you spell judge?*
S1: Mm?
S2: Judge?
S1: J, u, d, g, e.

When there were no exact equivalents, or when there were equivalents but they did not know them, the Chinese students often switched to their first language to work out the English equivalents of Chinese words or the Chinese equivalents of English words. Below are some examples from recorded group work:

Excerpt 58:

S1: *Hey, geoduck, how do you say geoduck?*
S2: Very expensive.
S3: It is expensive.
S1: Is it elephant something?

Excerpt 59:

S3: *Forgot how to say crab.*
S2: Crab.

Excerpt 60:

S2: *How do you say ability?*
S1: It's ability, ability.
S2: Yah, *but how do you say that everyone had his unique ability?*
S1: Strange ability?
S2: *Everyone had his ability.*
S3: Special.
S2: Yah. Every single one had his own special ability.
S4: Unique, unique ability.
S2: Unique ability.
In their observation of lectures given in English at a Hong Kong university, Flowerdew and Miller (1995) also noted such use of L1 discourse. When students who were less proficient in English did not understand some words and phrases during lectures, their classmates glossed the equivalents in Cantonese.

The Chinese students also switched to their first language to work out conceptual meanings of English words and phrases that they did not know or were not sure of. Excerpt 61 below shows that students used Chinese to discuss the conceptual meanings of the English phrase physical characteristics and what counted as a physical characteristic of the sun. In Excerpt 62, students talked in Chinese about the conceptual meaning of the English word discovery and what counted as a new discovery about the sun. In Excerpt 63, students spoke Chinese to work out the conceptual meanings of the English terms economic abuse and sexual abuse.

Excerpt 61:

S1: [Referring to the sub-heading “The Physical Characteristics” in the Planet Notetaking Sheet] “Physical characteristics” means what characteristics it has, right? It means what characteristics it has, right?
S2: What?
S1: Does physical characteristics mean characteristics?
S2: Physical means what dynamic characteristics it has.
S1: If I say there is a spot in the sun, would it count?

Excerpt 62:

S1: [Referring to the sub-heading “New Discovery about the Planet” in the Planet Notetaking Sheet] Does “discovery” mean the person who discovers?
S2: Discovery, discovery is, discoverer
S1: Is the person.
S2: Is the person. Discovery is not the person.
S1: New discovery?
S2: Yeah.
S1: But there are no new discoveries.
S2: There is. It [the sun] becomes smaller and smaller.
S1: Does it?
S2: Right.

... S1: Can I say there is a spot in the sun and that is a new discovery? Or is it old?
S2: It’s not new. There were black spots earlier.
S1: So it’s old.
S2: It’s not a new discovery.

Excerpt 63:

S3: [Picking up a card] What’s this?
S5: Economic [abuse] is the type that has to do with money, for example, restricting how much money she can use.
S1: [Jokingly] Just like your mother, who says you can use only two dollars a day.
S3: [Picking up another card] And this?
S1: This is sex [sexual abuse]. Sex is the type that is about sexual relations.

Using L1 to learn content knowledge. Besides using their first language to help themselves learn the second language, the Chinese students also used their first language to help themselves learn content knowledge. They were observed switching to Chinese to work out task requirements and content answers.

The following excerpts from recorded group work illustrate that Chinese students switched to their L1 to work out task requirements. Excerpt 64 shows that students discussed in Chinese how many items the teacher expected them to include in the fruit and vegetable category. In Excerpt 65, students used Chinese to discuss how much would be considered as sufficient for a definition of an English word.

Excerpt 64:

S1: What other fruits? How many did the teacher say we need to write?
S2: Twenty-five.

Excerpt 65:

S1: Hey, do I need to copy all of this for caribou [meaning the definition for the word caribou given in the Gage Junior Dictionary]?
S2: Did you copy this here?
S1: Yes, I did. But do I need to copy all of this?
Discourse data also reveal that the Chinese students switched to their L1 to work out content answers. Excerpts below are some typical examples of this type of use of L1 discourse.

Excerpt 66 illustrates that students used Chinese to reason whether tofu belonged to the meat category or the fruit and vegetable category. In Excerpt 67, students switched to Chinese to debate the differences between two newspaper articles on spanking children. In Excerpt 68, students used Chinese to discuss what fruits to include in the food group for fruits and vegetables. Excerpt 69 shows that students used Chinese to negotiate about what to include in the meat category. In Excerpt 70, students talked in Chinese about what the animal gopher is called in English so that they could check the encyclopedia for definitions and descriptions.

**Excerpt 66:**

S2: Tofu. Tofu.
S3: Tofu, t, o, f, u.
S2: Beans, b, e, a, n, s.
S1: These [tofu and beans] belong to this [meat] category?
S2: Yes.
S1: But it says meat here.
S3: If you turn to the other side [of the worksheet], you might not find it there [in the vegetables and fruit groups].
S1: What do you mean?
S3: I mean the two categories [meat and bean products] are put together here [in the meat group]. Tofu might belong to this category.
S2: Yes, that's right.
S1: But this group is for meat.
S2: It should be okay.

**Excerpt 67:**

S1: What's the difference?
S2: Okay. The difference between those two [articles], like, this one, this article say it's right, it's all right to spanking the kids. This one say it's not allowed. But his lawyer say it's all right.
S1: Is it?
S2: Yah. So he's right because he ... erm, some people say he's right to punish her [his] daughter, but the other people say he's not right.
S1: What's different? What's the difference? This one, it's can say, it's not saying definitely he can spank, it's only saying, it only says [quoting the title of the article]
“Spanking kids is not acceptable, BC official says.” It says not acceptable. It’s not a law. It doesn’t have people who can be in charge.

Excerpt 68:

S1: What other fruits?

T: What are some fruits you have in Taiwan?

S2: Star fruit.

T: Well, write it down.

S1: Oh, star fruit.

S2: What fruit?

T: Star fruit. It looks like a star when you cut it.

S3: Oh, also mango.

S1: Why didn’t you say it earlier?

Excerpt 69:

S3: What other meat?

S1: Seven, eight, nine, ten. Only ten.

S2: How about sea food?

S3: Sea food?

S2: Sea lobster.

S3: What else?

S1: Star fish. Star fish.

S2: Not edible.

S1: Hey, write frog. Write frog.

S1: What about snake? Snakes are edible.

Excerpt 70:

S1: [Pointing at the picture of a gopher in the worksheet] What is this?

S3: It’s a kind of deer.

S1: I’ve never seen this kind of animal before. . . . What is it? What is it called?

S2: Gopher.

S3: Gopher.
5.2.2 Functions of L2 Discourse

The analysis of student interactions during group work given in Figure 18 demonstrates that while 18% of Chinese students' L2 discourse was used for interpersonal functions, the majority, 82%, was used for ideational functions. However, as shown in Figure 19, of the L2 discourse used for ideational functions, the majority, 85%, was used for informing whereas only 15% was used for reasoning. It appeared that the limited use of L2 for reasoning occurred particularly when content was learned through English in ESL classes, in other words, they had not learned it in their first language before they came to Canada.

5.2.2.1 Using L2 for Informing

The Chinese students were observed speaking English when they tried to get immediate and concrete tasks completed in class, for instance, to memorize questions and answers for tests, to check answers to quiz questions, and to write answers to questions for assignments.

The following excerpts illustrate that the Chinese students spoke English when they attempted to memorize questions and answers for tests. The questions were provided by the teacher. Students first worked out the answers in small groups using both English and Chinese, then in the whole class in English only. When they were given time in class to review in pairs or small groups, they used English to memorize the questions and answers as they were to appear in English in tests.

Excerpt 71:

S4: Sodium is a metal or a non-metal?
S2: Mm?
S4: Metal?
S2: Yah.
S4: Yes, it is. So chlorine probably is a non-metal, right? Chlorine, chlorine.
S2: Non-metal.
S4: So carbon is a metal or a non-metal? Carbon.
S2: Non-metal.
S4: So, chlorine, non-metal or?
S2: Non-metal.
S4: Yah. So, oxygen is?
S2: Non-metal.
S4: Hydrogen is?
S2: Non-metal.

Excerpt 72:

S1: What is ionic bonding, ionic bond?
S4: Ionic bond is a, ionic bond is the force of attraction between two ions with opposite charges.

S1: What is bonding?
S4: Bonding is a kind of chemical change which happens when atoms join.

S4: When does a chemical change take place?
S1: Chemical change take place in, mm, take place when electron move from their path.

S1: What are two ways that bonding take place?
S4: Bonding takes place in one of two ways by sharing electrons, or by give and take of electrons between a atom, between an atom.
S1: How do non-metal atoms get their outer shell, outer electrons?
S4: By, let me think, non-metal, oh, sharing electrons.
S1: With what?
S4: With, with electrons.
S1: With other non-metal.

Rote memorization may be an important category for future studies of L2 use by Chinese students because it has been commonly observed as a learning style of Chinese students at different levels of education (e.g., Flowerdew & Miller, 1995; Nelson, 1995; Ogbu, 1995). In Yang’s (1993) study on student beliefs about language learning and their use of learning strategies, 91% of the 505 participants studying at various universities in Taiwan agreed that learning English as a foreign language involved a lot of memorization. One of the language learning strategies these students reported using was to memorize English vocabulary, grammatical rules, or even whole sections of English textbooks through repetition.
Rote memorization has also been considered as the primary teaching strategy in Chinese contexts due to the demands of the examination system (e.g., Mao & Bourgeault, 1991). In her account of working as a foreign expert in a teachers’ university in the PRC, Dunkelblau (1996) reported on her observation of an English class in a middle school in which the teacher, after having led the class through a series of audio-lingual activities, asked students to read and recite a complete chapter in the textbook from beginning to end. When asked to give advice to a Western teacher teaching in the Chinese context, one of her 13 graduate students enrolled in the language teaching methodology course suggested having the class first memorize material and then recite it out loud.

In their discussion of the learning approaches of Chinese students, Gow et al. (1996) took the Chinese tendency towards rote-learning approaches to be associated with achievement motivation and the learning context. To put it more specifically, they saw it as related to the examination system and the language of instruction. Firstly, contrary to stated goals, the Chinese examination system tends to promote memorization as the primary teaching strategy. Students are required to reproduce defined bodies of knowledge for examinations. To increase their chances of success, students adopt the approach of rote memorization of facts, particularly prior to examinations. The correspondence between rote memorization and superior exam performance is high. As a consequence, students are induced towards reproductive forms of learning. Secondly, in a situation where the language of instruction is the students’ second language, students tend to regurgitate verbatim from textbooks or notes if they have only a few L2 words at their command to express their thoughts freely. Rote memorization is a coping mechanism for students whose L2 proficiency is not up to the level required for intricate thinking.
Should the category of "informing" exclude memorization on the grounds that memorization does not involve understanding? With reference to Chinese students' rote-learning approaches, Gow et al. (1996f) presented the argument that repetitive processes may not exclude a search for meaning and understanding. In other words, memorization and understanding can co-exist in Chinese students. Students can set out first to understand the material and then learn it by heart for assessment. They may memorize with understanding. The following is a quotation from a student interview reported in Kember and Gow's (1990) earlier work that illustrated their point:

I read in detail section by section. If I find any difficulties I try my best to solve the problem before I go on to the next section. . . . If you don't memorize important ideas when you come across them, then you will be stuck when you go on. You must memorize and then go on - - understand, memorize, and then go on, understand, memorize, and then go on. That is my way of studying. (p. 361, as cited in Gow et al., 1996, p. 121)

The discourse data also indicate that when the Chinese students were instructed to check answers to quiz questions in groups, they used a lot of English, presumably because the questions and answers were all written in English. The following excerpt is an example of such use of L2 discourse:

**Excerpt 73:**

S3: Number 2.
S1: European settled community. Viking.

. . .
S3: [To 2] What do you have?
S2: British.
S3: [To 4] What do you have?
S4: I have Viking.
S3: Okay, put a question mark.
S4: Okay, question mark.
S2: Question mark.
S4: What was the name of the European explorer
S3: You don't have to read the question.
S4: Okay. . . . John Cabot.
S3: I have Viking. [To 1] What do you have?
S1: John Cabot.
S3: [To 2] What do you have?
S2: I have nothing.
The following extracts show that the Chinese students spoke a lot of English when writing answers to questions for assignments in groups. The questions were written in English. The answers also needed to be written in English.

**Excerpt 74:**

S1: Er, next sentence. [Writing] A hydrogen, molecule, a hydrogen molecule
S4: Is
S1: [Writing] Is made of
S4: Is made of two hydrogen, made of two hydrogen atoms.
S1: [Writing] Is made of two hydrogen, atoms.
S4: Yeah. Okay. That’s it.
S1: That’s it.

**Excerpt 75:**

S4: How does a chlorine get a full outer shell? Two chlorine share their electrons.
S3: [Writing] Two chlorine . . . two chlorine share

S2: Two chlorines.
S4: Share, share
S3: [Writing] Its one electron to each other.
S1: [Share] One electron to each other.
S4: Share, share one electron to each other. Is that okay?
S1: I think so.
S4: Okay.

**5.2.2.2 Using L2 for Reasoning**

When Chinese students’ L2 discourse did occur in reasoning function, it appeared that it was particularly used for content learned through English in ESL classes. That is to say, students
had not learned the content information back in their home country. They did not have prior knowledge about the subject matter in their first language.

In Excerpt 76, Student 2 was in Grade 8 and had apparently not learned about magnesium before. The concept of magnesium was learned in the ESL Science class at Johnson Secondary School. In explaining to his group mates how he did the question on magnesium, he started in Chinese, but switched to English presumably because it was easier for him to explain this concept in English than in Chinese.

**Excerpt 76:**

S3: [To 2, referring to question 4(c): Explain why magnesium has no overall charge.] *Hey, how did you do question 3?*
S2: Ah?
S3: *How did you do question 3?*
S2: *Because* sodium ion has plus one, and chlorine ion has minus one. So, plus one and minus one equals zero. So there’s no overall charge.
S3: Mm hmm.

Excerpt 77 was an extract from a group task that required students to name the parts of a Bunsen burner. According to the ESL Science teacher, the Chinese students had never used a Bunsen burner before. Learning about the Bunsen burner and the procedures of lighting one was part of safety education before students were taken to work in a chemistry lab. This group of Chinese students did the task completely in English.

**Excerpt 77:**

S4: What do you think this one? Base
S3: Number 5.
S4: Base strike?
S3: Striker.
S4: Striker. Which one?
S3: Number 5.
S4: Number 5? Base striker?
S3: I mean number 2. Number 2 is striker.
S4: Yah. I think number 2 is.
S1: Striker.
S4: So, number 2 is striker.
S1: Number 2?
5.3 Cooperative Learning Goals as a Complex Knot of Dilemmas

Second language education literature describes cooperative learning as providing second language learners more opportunities for L2 development, content acquisition, and L1 maintenance. Cummins' (1991a, 1992b, 1992) bilingual proficiency theory suggests that L2 students can acquire content knowledge and develop L2 proficiency through the use of L1. Thus, cooperative learning appears to offer a solution to many problems of second language education. However, cooperative learning goals seen from the Chinese immigrant students' standpoint reveal quite a different picture. The interview data show that the Chinese immigrant students in the present study had mixed feelings about cooperative learning goals. They made ample use of their first language during group work in ESL classes. Yet, almost simultaneously, they expressed their wish of not wanting to speak their first language. They wanted to speak more English in class. The observation data demonstrated that there were differences in the functions of Chinese students' L1 and L2 discourse produced in groups. While their L1 discourse was often used to help learn L2 and content knowledge, their L2 discourse was often used for answers for tests and content only learned in L2. These findings seem to indicate that the set of ideal goals claimed for cooperative learning may in fact be a complex knot of dilemmas for the Chinese immigrant students.

The dilemmatic nature of cooperative learning goals was expressed in terms of three sets of dilemmas through interview and observation data. The first set of dilemmas centered on the balance between L1 maintenance and L2 development. The second set of dilemmas revolved
around the use of L1 for academic language and developing academic language in L2. The third set of dilemmas related to content learning in L1 and content learning in L2.

5.3.1 Dilemmas of L1 Maintenance vs. L2 Development

To a large extent due to Cummins’ (e.g., 1991a, 1991b, 1992) work on bilingual education, it is widely believed in second language education that maintenance of the first language is linguistically beneficial for L2 students in terms of their second language acquisition. Much empirical research has argued that maintaining and developing one’s mother tongue does not interfere with the development of L2 proficiency. To the contrary, it helps develop L2 proficiency (e.g., Cenoz & Valencia, 1994; Fazio, 1994; Orzechowska & Smieja, 1994). For a thorough review of research evidence supporting the use of the native language, see Auerbach (1993) and Collier (1992).

Some of the findings reported in this chapter are in agreement with the empirical investigations, while some seem to be distinctively different from the research literature. Student discourse data revealed that there was a significant amount of Chinese spoken among the Chinese students during group work. Discourse analysis suggested that the Chinese language was, in many cases, used to help students learn the English language. Nonetheless, the Chinese students expressed their mixed feelings about speaking Chinese and English in groups. They did not appear very happy about speaking Chinese to each other during group work. They seemed to want to speak more English. Why is that? Cummins’ bilingual education theory does not seem to explain these findings. Three possible explanations emerge, one from the ideological dilemma literature in sociology, one from immigrant parent literature in second language education, and one from the language and identity literature in second language education.
Firstly, Chinese immigrant students’ mixed feelings about speaking Chinese and English in ESL classes are a signal of the complexity of L1 and L2 use and the development of language for the mainstream. The Chinese students produced ample amounts of talk in both L1 and L2 when working in groups. Besides being used for learning content knowledge and for social purposes, their L1 was used to help learn the spelling of English words, English equivalents of Chinese words or Chinese equivalents of English words, and conceptual meanings of English words and phrases. But they felt resentful about speaking Chinese, especially when it was not used on task, because that took their time away from speaking English. These students were all high school students. Some of them were in Grade 10 or 11. They were under tremendous pressure to finish high school and go to university. However, they felt they did not have enough time to learn the English language to the level required at universities. The dilemma of L1 use and L2 development seemed to have pulled the Chinese immigrant students in opposing directions. If they chose to speak Chinese in class, they would have less time speaking English. If they decided to speak more English, they would have fewer opportunities to speak Chinese. The decisions were difficult to make because either way there appeared to be gains and losses. How could they win both at the same time? How could they balance the two goals?

Secondly, Chinese students’ mixed feelings about the use of L1 and L2 during group work in ESL classes may be a result of the pressure from their parents. Most of the Chinese students interviewed in this study mentioned that their parents wanted them to move out of the ESL program as soon as possible so that they could have more time studying in mainstream classes before going to universities. The same parental concern was echoed in Salzberg’s (1998) study on Chinese immigrant parents’ perceptions of their adolescent children’s ESL learning and academic achievement in Canada. Most of the parents she interviewed emphasized their desire to have their children exit the ESL program. They felt that ESL courses took away their children’s
time from learning in the mainstream courses. They felt that they needed to put pressure on their children to have a speedy exit from the ESL program. Under such parental pressure, it may be speculated that Chinese students did not want to speak Chinese because they regarded speaking Chinese as slowing down their learning of English and consequently their exit from the ESL classes. It may also be speculated that the Chinese immigrant students wanted to learn English fast so that they could move out of the ESL quickly and satisfy their parents’ expectations. Yet in order to complete the tasks in a timely fashion, students frequently switched to Chinese rather than attempting the tasks using English.

Thirdly, Chinese students’ mixed feelings about the use of L1 and L2 in ESL classes appeared to relate to their identity in different groups. On the one hand, they wanted to move out of the ESL program because of the prevalent perception among secondary school students, most likely including themselves, that ESL classes were remedial classes and ESL students were learning disabled students (Kanno & Applebaum, 1995). They wanted to move into mainstream classes and the bigger English-speaking community. They saw English as the only way to achieve that. On the other hand, they felt peer pressure to speak Chinese to each other in ESL classes. They did not want to be excluded from their peer groups. They wanted to be part of the Chinese-speaking community.

Language constructs and is constructed by identity (e.g., Ochs, 1993). “Second language learning in some respects involves the acquisition of a second identity” (Brown, 1992, p. 79. For recent discussion about language and identity in the field of second and foreign language education, see, for example, Duff & Uchida, 1997; Leung, Harris, & Rampton, 1997; Morgan, 1997; Norton, 1997; Peirce, 1995b; Schecter & Bayley, 1997; Thesen, 1997). In their study in the United States on Chinese adolescent immigrant students’ experiences of multiple discourses and multiple identities in schools, McKay and Wong (1996) documented “cases of strong Chinese-
language retention and strong English acquisition existing side by side, or strong Chinese cultural identification and a strong desire to become American existing side by side” (p. 604). These side-by-side needs and desires for two languages and two identities came up in the Chinese students’ interview responses in the current study. The dilemma of L1 and L2 use was more than just a dilemma between L2 development and L1 maintenance; it was also a dilemma of language and identity for these students. How could they balance between two languages and double identities?

Goldstein (1997, in press) noted that the majority of secondary school students from Hong Kong in her study created a language boundary “between membership in their own linguistic community and membership in the wider school community” (1997, p. 359). They maintained the boundary by speaking Cantonese among themselves and reserving the use of English for relationships with students outside the Cantonese-speaking community. A small number of Cantonese-speaking students in her study “levelled the boundary” by using English not only with non-Cantonese-speaking students, but among themselves as well. Considering the Chinese immigrant students in the present study, they seemed to be somewhere in between the two groups of Cantonese-speaking students in Goldstein’s research. They spoke a significant amount of Chinese among themselves, but they also spoke English to one another in groups. In their frequent switch between English and Chinese, they seemed to be involved in a constant struggle of language crossing and negotiation and renegotiation of identities (Rampton, 1995).

It seems that the milieu of cooperative learning in the ESL classroom is by no means a culturally neutral territory where only L2 development and L1 maintenance is at issue. It is a site of intense negotiation between different languages and different identities. When Chinese immigrant students in this study spoke Chinese and English during group work, they did not just code-switch linguistically, but also culturally. Code-switching practice symbolized these students’ individual identities and group membership. Along with the production of bilingual
discourse in groups, double identities were established, cultural as well as linguistic boundaries were crossed.

5.3.2 Dilemmas of Using L1 for Academic Language Versus Developing Academic Language in L2

Cummins' (1991a, 1991b, 1992) bilingual proficiency theory proposes that cognitive/academic skills—for instance, conceptual knowledge, thinking skills, semantic complexities—acquired through the first language will manifest themselves in the second language. According to this theory, academic language should occur in L2 as well as in L1. Student discourse data in this study demonstrated that academic language did occur in L2. One instance of academic use of L2 can be found in Excerpt 76, in which student 2 explained to his group members how he arrived at the answer for the question why magnesium had no overall charge. He started in Chinese, but switched to English until he finished his explanation. This example indicates that there is potential for academic language development in both L1 and L2 during group work. However, student discourse data also show that there was not much reasoning in the L2. L2 tended to be used much more for informing. For instance, students appeared to speak a lot of English with very little or no use of Chinese when trying to memorize questions and answers for tests (e.g., Excerpts 71 & 72), when checking answers to quiz questions (e.g., Excerpt 73), and when writing answers to questions for assignments (e.g., Excerpts 74 & 75).

To explore learners' acquisition of L2 academic language in cooperative learning contexts, Jacob et al. (1996) carried out a study in a sixth-grade Social Studies class. Their findings presented a complex picture of the influence of cooperative learning on opportunities for acquiring academic English. Although they found a wide range of opportunities for L2 learners to
acquire academic English, they also found that these opportunities occurred relatively infrequently. Many opportunities were missed. Of the opportunities that did occur, many were skewed toward simpler aspects of academic language. The most frequent opportunity in their study involved L2 students giving or receiving help with decoding academic terms. The research by Jacob et al. seems to support the findings of this study in that there was not much academic language in L2 during group work.

On the contrary, student discourse data in the current study reveal that there was more use of reasoning in L1 than in L2, although on the whole L2 was used more for the informing function than L1. For instance, when students tried to work out conceptual meanings of English words and phrases such as physical characteristics (Excerpt 61), discovery (Excerpt 62), economic abuse and sexual abuse (Excerpt 63), and so on, they used Chinese exclusively. When they discussed whether tofu belonged to the meat group or the fruit and vegetable group, a knowledge structure analysis (Mohan, 1986, 1998) revealed that the construction of classificatory knowledge of tofu was done entirely in Chinese (Excerpt 66). When students debated the differences between two newspaper articles on spanking children, they started in English but switched to Chinese to argue about the subtleties of the terms not acceptable and a law (Excerpt 67).

These and other examples presented in this chapter indicate that when the Chinese immigrant students in this study worked in groups, they tended to do reasoning in L1 more than in L2. As it has been stated (e.g., Collier, 1987, 1995; Collier & Thomas, 1989; Cummins, 1991a), conversational language proficiency takes less than two years to acquire, whereas academic language proficiency takes as long as five to seven years to learn. The Chinese immigrant students in the present study were at relatively beginning levels. It would be easier for them to handle the practical aspect of classroom discourse in L2, but not so easy to handle the
theoretical aspect of classroom discourse in L2. They therefore used L2 for concrete doing and switched to L1 for abstract thinking. Yet, what is noteworthy is that students often counted in Chinese (e.g., Excerpt 69). Counting is basic but conceptual. The students learned it when they were very young and it became a part of them. Even when they probably had the language for counting in L2, they still did it in L1. The example of students switching from English to Chinese when debating the differences between two newspaper articles on spanking children (Excerpt 67) is also worth noting. It could be a sign of students’ failure to operate in L2. They became confused, frustrated, and lost in what to say in L2. They therefore switched to L1 and seemed to have found security in their mother tongue.

The use of L1 for academic language, in addition to social functions, has been reported in the research literature on bilingual code-switching in the classroom (e.g., Adendorff, 1993, 1996; Canagarajah, 1995; Cohen, 1996; Lucas & Katz, 1994). In situations where Chinese is the first language, earlier research noted that teachers used L1, to different degrees, to clarify or to check for understanding (Guthrie, 1984), to explain new and difficult concepts (Richards, Tung, & Ng, 1992; Wong-Fillmore, 1980), to explain and illustrate the content (Johnson, 1983, 1985), and to explain vocabulary and language rules (Ho, 1985; Ho & Van Naerssen, 1986).

While earlier research focused on the functions of switching from L2 to L1, more recent research has explored the roles of L2 as well as L1 in relation to the functional variation of classroom discourse. Lin (1990) conducted a study to answer the question of why bilingual teachers switched to Cantonese (L1) in English (L2) classes in Anglo-Chinese secondary schools in Hong Kong where the medium of instruction was supposed to be English. One major finding of Lin’s research is that bilingual teachers used English more for introducing sample sentences, phrases, and vocabulary. They used Cantonese to explain grammatical rules and semantic meanings of lexis in situations where the use of L2 alone did not ensure that students with
limited L2 proficiency understood what was being taught. Wong's (1993) research involving 32 immigrant entrepreneurs enrolled in a business and language program in Vancouver, Canada, set out to investigate the roles of the first and the second language in code-switching in a bilingual educational context. Her findings demonstrated that in both teacher talk and teacher-student interactions, business and language rules were most of the time handled in Cantonese (L1), while business and language examples were mostly handled in English (L2). Lin’s and Wong’s studies share a common pattern in research findings, in other words, classroom discourse seemed to serve two different types of functions, one dealing with the theoretical aspect of teaching and learning activities and the other with the practical aspect. In classes where two languages were spoken for educational purposes, L1 appeared to be used more for the theoretical aspect of teaching and learning activities and L2 for the practical aspect.

Cooperative learning is considered to allow L2 learners to continue developing their L1 academic language proficiency so that it can be stimulated to transfer to L2. However, research findings by Jacob et al. (1996) seem to suggest that cooperative learning is not doing much for academic use in L2. The findings of the present study seem to support their research. Furthermore, they seem to indicate that L2 discourse tended to be used for informing more than L1 discourse, and that there was more use of reasoning in L1 than in L2. When considered together, these findings seem to point to a problem: Maintenance of the first language is an important goal. Developing academic language in L2 is an important goal. But, when these two goals are taken together in a cooperative learning situation, a dilemma results. The Chinese students were supposed to develop the academic language for school work, but they were also under time pressure to finish the group task in class. If they attempted to get the work done, then they would not spend more time exploring potential understandings of the task. If they at least tried to talk through their understandings in L1, which was deemed faster and easier by many
Chinese students, then what would happen to the development of their talk through understandings in L2? The choices were difficult to make because the balance of gains and losses seemed to be evenly matched. How could students accomplish both goals if one was clearly taking away from the other?

The research findings which suggest that L1 was being used for reasoning more than L2, and L2 was being used for informing more than L1 have theoretical and pedagogical significance. They raise important questions concerning Cummins' theory of bilingual proficiency: If there is very little use of academic language in L2, where is the evidence of L1 transfer to L2? In what ways does L1 support increase academic language development in both L1 and L2?

5.3.3 Dilemmas of Content Learning in L1 Versus Content Learning in L2

Cummins' (1991a, 1991b, 1992) common underlying language proficiency theory suggests that L1 learning experiences provide the root system necessary for eventual academic progress in L2. L1 use serves as a practical pedagogical tool for providing greater access to L2 student' prior knowledge and allows content learned in L1 to transfer to L2. From student discourse data in the present study, there is evidence that students transferred prior knowledge from the Chinese context to the English context. This was demonstrated in Excerpt 68, in which students worked on a list of fruit for the food category of fruits and vegetables. With the help of the bilingual ESL teacher, students' prior knowledge about fruit in L1 became available in content learning about food categories in L2.

Nevertheless, a number of important points can be made based on other examples in the student discourse data. First, can content learned in L1 always be simply transferred to L2? Is transfer merely a matter of translation of labels? In the case of classification task of food...
categories, the taxonomy of tofu (Excerpt 66) was not particularly simple for the students even though they could translate labels for labels. Was tofu meat? Tofu is made of soya beans. Beans are vegetables. Vegetables are not meat. In markets in Taiwan, Hong Kong, and the PRC, tofu and other soya bean products are stored in the vegetable section, not in the meat section. Tofu and other bean products are also main ingredients in vegetarian restaurants. According to common sense classification, tofu is surely not in the meat group. Yet, tofu contains protein and so does meat. According to scientific classification, tofu may be grouped in the meat category in terms of protein. It looks like common sense classification was in tension with scientific classification.

From a functional linguistics perspective that views language primarily “as a system for constructing meaning, rather than a conduit through which thoughts and feelings are poured” (Halliday & Martin, 1993, p. 23), transfer between languages may be a much more complicated matter than simply translating labels from L1 to L2. Although students may have a concept in L1, it may exist in a different taxonomy than in L2. To use Halliday and Martin’s example, cucumbers, melons, squashes, pumpkins, and marrows are not a related set in English textbooks. In common sense classification in Chinese, they are a related set as they are all kinds of gua (huanggua, xianggua, wogua, nangua, donggua). When it comes to constructing technical and scientific taxonomies, even if Chinese students can translate labels for labels, they would still be faced with the problem of grasping the meaning of the scientific classification.

Second, there is evidence in discourse data that student prior knowledge in L1 was in tension with content knowledge learned in L2. Take for instance the classification task in Excerpt 69. Were frogs meat? Were snakes meat? What constituted meat for these Chinese students? How did they classify meat cognitively? Was meat what they had eaten in their home country in the past? Or, was it what they ate here in Canada, like beef, chicken, and so forth? Frogs and
snakes are considered delicacies in Chinese culture. In Canadian culture, the very thought of eating frogs or snakes would probably be unacceptable. What is delicacy in one culture may well be considered poison in another. Besides a whole other issue of protecting animals, culture is called into question here. What is a culturally appropriate answer? What would be perceived as culturally acceptable? It seems that classification learned in L1 was in tension with classification in L2.

Third, student discourse data also reveal that content learned in L2 tended to be dealt with in L2 rather than in L1, which was inconsistent with Cummins' theory that conceptual knowledge including subject matter learned in either L1 or L2 is supposed to be discussed and shared in both L1 and L2. In Excerpt 76, Student 2 shared his answer for the question on magnesium with his group members in English. It is worth noting that he started in Chinese, but soon switched to English and completed his explanation in L2. The reason may be because he learned the concept of magnesium in English and found it easier to explain in L2 rather than in L1. This seems to suggest that the use of L1 is helpful only to a certain degree. In cases where there is no prior knowledge in L1, the helpfulness of L1 use is considerably limited. Cummins (1992) admitted that when L1 is a minority language and L2 the majority language, instruction through L1 will usually result in transfer to L2 but the opposite is seldom the case. The question is: If content learned in L2 is not discussed and shared in L1, to what extent can L2 students simultaneously develop academic discourse in both languages?

Fourth, for some students, there is no language or content knowledge relevant to a specific case in the hypothetical common underlying proficiency that can be transferred between two languages. Take for instance Excerpt 70. Students worked on a worksheet of pictures of animals they saw in a video about Canadian wildlife during an ESL Social Studies class. They were required to write the name, the definition, and the size of each animal on the worksheet. At
a detailed level, Student 1 seemed to have never seen a real gopher or a picture of a gopher before. She had no conceptual knowledge about gophers in either L1 or L2. She did not know the terminology for *gopher* in either L1 or L2. There was nothing to transfer between L1 and L2 regarding gophers. She had to learn both the label and the concept for gopher in L2. At a broader level, the Chinese education system does not have the exact equivalent of the subject social studies. Nor does it have the exact equivalent of the subject science. Lack of exact equivalents of these two subject areas could possibly make transfer of related content knowledge difficult for Chinese students.

To sum up, student discourse data presented in this chapter seem to suggest that Chinese students' use of L1 and L2 during content tasks in groups may be rather more complicated than a transfer of labels between two languages. Firstly, the transfer model seems to make a conduit theory assumption that conceptual knowledge can go from one language to another, and students need only to learn the labels in the L2. The conduit theory assumption treats language as a channel. Knowledge flows in the channel of language like water, separate from the channel. But can conceptual knowledge be separated from language? As students learn new areas of knowledge, they learn new areas of meaning and language (Mohan & Van Naerssen, 1997). For instance, acquiring knowledge about the Bunsen burner (e.g., Excerpt 77) required more than just labels. Students acquired the labels as a whole, related to the procedures of lighting the Bunsen burner, and the procedures of lighting the Bunsen burner to the lab safety. They did not just learn the labels of the Bunsen burner, but procedures of lighting the Bunsen burner, and the concept of lab safety. Safety could not be separated from procedures, and procedures from the labels.

Secondly, other than the linguistic and the conceptual factors, Chinese students' group interaction between L1 and L2 on content appears to involve many other factors such as parental influence, individual identity, group membership, time constraints, and cultural appropriateness.
Do L2 students have the terminology in L1? Have they learned it in L2? Do they have prior knowledge about the content in L1, or are they learning the content only in L2? Are they under pressure from their parents to learn L2 fast and exit the ESL program quickly? Do they feel peer pressure for speaking L2? Do they speak L1 to keep their membership of the compatriot group? Are they under time pressure to complete a group task in class quickly? What is perceived as a culturally acceptable or unacceptable answer? If academic language in L2 takes considerably longer time to acquire than conversational language, then Cummins' (1991a, 1991b, 1992) bilingual proficiency theory provides a line of explanation for why L1 is used more for the theoretical aspect of classroom discourse and L2 for the practical aspect. But it has also left many things out. It does not seem to be able to deal with the socioeducational complexity of Chinese immigrant students' L1 and L2 use during cooperative learning activities and their development of language for the mainstream content classes.

In conclusion, second language education literature is very positive about cooperative learning and lists three excellent goals for it. Cummins' (1991a, 1991b, 1992) bilingual proficiency theory seems to indicate that all of these goals can be achieved. This study reveals that there were ambiguities and ambivalence in the way Chinese students felt about these cooperative learning goals. Their mixed feelings came up through their voices in the interviews. They seemed to in part follow the literature and the theory, and accept cooperative learning goals, but they also seemed to have reservations and different views. The observation data illustrate that the conflict students seemed to have was present in their group discourse. Some of the Chinese immigrant students appeared to entertain some of the goals some of the time. They did not seem to entertain all of the goals all of the time.
The cooperative learning goals appeared to be a complex knot of dilemmas for the Chinese immigrant students in this study. They had difficult choices to make in the real world of the ESL classroom and were pushed and pulled between opposing alternatives. The difficulty of cooperative learning goals was not solely confined to a choice between two or several alternatives. The difficulty lay in that whichever alternatives they chose, the result was equally unsatisfactory. Whatever decisions were made, the dilemmas of cooperative learning goals still remained as dilemmas. In addition, the Chinese immigrant students were not used to making their own choices. Their past educational experience did not allow them to make much choice. As one Chinese student expressed very explicitly in an interview audio-recorded and edited by the ESL Department of Johnson Secondary School: “Canada is different from my country. In Canada, you have to make choices. The problem is, we don’t know how to do that.” This appears to confirm Nunan’s (1993) claim in discussing the differences between learner-centered and learning-centered curriculum that students do not know how to make choices automatically. They learn to make choices parallel with the learning of the language.

The research findings presented in this chapter call for a need to recognize the dilemmatic aspects of cooperative learning goals, aspects which are preconditions for any conflicting views and discourse, and which continue to exist in everyday classroom situations where difficult choices need to be made. The dilemmas of cooperative learning goals can be seen as dilemmas for all second language learners, not just restricted to Chinese immigrant students, in that all second language learners are faced with the difficult decisions of maintaining L1 and developing L2, using L1 for academic language and developing academic language in L2, and learning content in L1 and learning content in L2. In this respect, the Chinese immigrant students are not alone.
CHAPTER 6: IN SEARCH OF THE LAST WORDS

This study explores how recent Chinese immigrant students perceive their cooperative learning experiences in ESL classes and how they interact with one another during cooperative learning activities. It attempts to explore the dilemmas which Chinese students may encounter with cooperative learning in ESL classes at a broad level, and the dilemmas which they may encounter with three cooperative learning goals of developing L2, maintaining L1, and acquiring content knowledge at a detailed level. The two specific research questions are:

1. What are the dilemmas, if any, that Chinese immigrant students encounter in their living experiences of cooperative learning in ESL classes in general?
2. What are the dilemmas, if any, that Chinese immigrant students encounter regarding the cooperative learning goals of developing academic language proficiency in L2, maintaining L1, and acquiring content knowledge?

6.1 Summary of Research Findings

While previous research on the beneficial effects of cooperative learning in second language education as well as in mainstream education is impressive, this study suggests that the actual operation of this instructional strategy in the classroom may involve some other considerations. Students’ point of views and their action discourses obtained through interviews and observations present a complex, ambivalent, ambiguous picture of cooperative learning in the ESL classroom. The Chinese immigrant students in this study seemed to be sitting on the horns of cooperative learning dilemmas, faced with unsatisfactory alternatives. The tensions and
contradictions they were confronted with appear to be intrinsic to the three cooperative learning goals claimed for L2 learners.

6.1.1 Chinese Students on the Horns of Cooperative Learning Dilemmas

The findings of this study suggest that the Chinese immigrant students experienced tensions and contradictions about cooperative learning in both their opinions and their interactions. The interview data reveal that individual Chinese students had conflicting views of cooperative learning within themselves. On the one hand, they liked working in groups in ESL classes because it made learning easier and less threatening. They could share the work load and do the work faster. They could have more ideas and do the work better. In addition, they could have more chances to practice English with other students in groups. On the other hand, they disliked working in groups because it was sometimes hard to get consensus, especially when some group members stuck to their own ideas. When they had different ideas, they spent longer time deciding which one(s) to choose, and they did not always agree with each other. Groups sometimes got too noisy and difficult to organize. Group members did not always do their part of the job. Moreover, some felt that they could not demonstrate individual ability to the teacher, and, therefore, could not get better marks for their part of the work. In addition, they felt that they spoke too much of their first language in groups.

Dilemmas of cooperative learning also exist at the level of classroom action. The observation data indicate that the Chinese immigrant students did not always cooperate during group work. It is true that there is discourse evidence of them helping one another with spellings of English words, with English equivalents of Chinese words or Chinese equivalents of English words, with English grammar, and with subject matter. However, there is also discourse evidence of Chinese students speaking to each other with a non-positive emotional tone, ignoring group
members' request for help, rejecting support offered to them, and not doing their part of the job. Moreover, there is discourse evidence of Chinese students dividing the work up rather than constructing jointly, dividing the work rolls between thinking and doing, finishing the group task in class quickly rather than discussing the ideas behind what they were doing, and giving out answers rather than helping their group members reach their own conclusions.

The contrary themes of Chinese immigrant students' views and discourse suggest that cooperative learning might be a matter of dilemmas for them rather than a simple solution. In the real world of the ESL classroom, they were faced with opposing alternatives between cooperation and individualism, between getting the job done and sharing the knowledge of the task, and between using L1 to help with L2 and content learning and developing L2 for academic purposes.

The sources of cooperative learning dilemmas can be multiple; conflicts can stem from structures of cooperative learning activities, group dynamics, individual learning styles, and even student personalities. While recognizing other factors contributing to the dilemmas, this work stresses the dilemmatic nature of cooperative learning as a possible explanation to Chinese immigrant students' simultaneous adherence to the conflicting views and discourses of this educational practice. Ideologically, cooperative learning dilemmas appear to grow out of conflicts of socially shared values and commonsensical beliefs such as collectivism and individualism. The discrepancies between the Chinese students' home educational culture and their present Canadian secondary school culture seem to add another layer of complexity to the dilemmatic situation of cooperative learning in an ESL context.
6.1.2 Tensions Intrinsic to Cooperative Learning Goals

The interview data of this study indicate that the Chinese immigrant students had mixed feelings about cooperative learning goals, particularly the goals of L2 development and L1 maintenance. They admitted making ample use of their first language during group work to offer or request help about teacher instructions, school work, the English language, and subject matter. They said it was because they were used to speaking their L1 to fellow compatriots and because it was faster and easier to use L1 than L2 when working in groups. Yet, almost simultaneously, they expressed their wish to speak more English and not speak Chinese at all in ESL classes.

A close examination of Chinese students' interactions during group work suggests that there were differences in the functions of their L1 and L2 discourses. Besides interpersonal purposes, they used their first language to help one another learn the second language and content knowledge for subject matter. They were observed switching to Chinese to work out spellings of English words, English equivalents of Chinese words or Chinese equivalents of English words, and conceptual meanings of English words and phrases. They were also observed switching to Chinese to work out task requirements and content answers. There were many examples of students using L1 for reasoning purposes. By contrast, they appeared to use L2 for informing when trying to memorize questions and answers for tests, check answers to quiz questions, and write answers to questions for assignments. They also tended to use their L2 for reasoning, particularly when content was learned through L2 in ESL classes. That is to say, students had not learned the content in their home country and did not have prior knowledge about it in their first language.

The findings of this study seem to suggest that the set of ideal goals claimed for cooperative learning might in fact be a complex knot of dilemmas for the Chinese immigrant students. In the ESL classroom reality, they were pushed and pulled between conflicting
alternatives. Firstly, they wanted to develop L2 because they were under parental pressure to move out of the ESL program quickly so that they could have more time studying in the mainstream classes before going to university. But their friends would think that they were trying to show off their English abilities if they spoke in L2 to them in groups. To keep friendship with their compatriot peers, they would speak in L1. To satisfy their parents’ expectations, they would need to speak in L2. Which should they choose? Secondly, it was not enough just to practice L2, the Chinese students were supposed to develop the academic language proficiency of L2 that went with school work. However, they were also under time pressure to complete the group task in class. If they aimed at getting the job done, then they would not spend a lot of time sharing understandings of the task. If they tried to talk through their understandings in L1, which was considered faster and easier by the students themselves, then what would happen to the development of their ability to talk through their understandings in L2? Thirdly, if they at least used their L1 to get access to content learned in L1, then what would happen when they came across new content, the subject matter of which they did not have the language in their L1 to deal with?

It needs to be recognized that there may be potential conflicts between cooperative learning goals themselves in the real world of the classroom that generated dilemmas for Chinese students. When Chinese immigrant students in this study worked in groups in ESL classes, they had opportunities for developing academic discourse in L2; they had opportunities for using their first language; they had opportunities for acquiring the subject matter. However, when they took all of the goals together, they ran into dilemmas. They had difficult choices to make between developing L2 and maintaining L1, between using L1 for academic language and developing academic language in L2, and between learning the content in L1 and learning it in L2. Whichever decisions they made, they could not escape dilemmas. The tensions and
contradictions involved in the dilemmas appear to be intrinsic to cooperative learning goals claimed for L2 learners.

6.2 Implications for Further Research

This study does not intend to explore how Chinese immigrant students cope with cooperative learning dilemmas and how they make decisions about incompatible alternatives. Rather, it is concerned more with the dilemmas themselves, and with how these dilemmas arise in the first place. The research findings of the study have at least one implication for educational researchers who are interested in cooperative learning in the second language classroom. It relates to what researchers look for in their studies on cooperative learning in second language education.

6.2.1 Moving From What are the Benefits to What are the Conflicts

The findings of this study suggest that cooperative learning can involve conflicting views and discourses. Individual Chinese students may simultaneously hold multiple and contradictory conceptions of cooperative learning. And they may simultaneously generate multiple and conflicting discourses during cooperative learning tasks. By stressing its dilemmatic nature, the present study is able to see cooperative learning as frequently a form of debate among and within individual students, and between students and teachers. Further, the content of the debate appears to have social and cultural roots, for the concepts involved and their meanings are constructed through the social and cultural ideology. The social and cultural ideologies that associate themselves with cooperative learning are mapped on to individual consciousness.

In her commentary on the theory of methodology in qualitative research, Peirce (1995a) pointed out, "the greatest challenge for educational researchers is not how to solve problems but
how to frame questions" (p. 575). For researchers who are interested in cooperative learning in the second language classroom, although looking for "the best" cooperative learning tasks and their beneficial effects is often necessary, an increasingly important question is to recognize L2 students' conflicting interpretations and agendas (i.e., theory and practice) for cooperative learning and articulate the cooperative learning dilemmas that L2 students are unable to articulate. One possible theoretical explanation of how the three cooperative learning goals can be achieved is Cummins' (1991b, 1992) bilingual proficiency theory, which suggests that L2 students can acquire content knowledge and develop L2 proficiency through the use of L1. As has been discussed earlier in this work, this model needs to address various conflicts and dilemmas, such as L1 maintenance versus L2 development, use of L1 for academic language versus development of academic language in L2, and content learning in L1 versus content learning in L2. These dilemmas set an agenda for researching how students and teachers perceive and act upon these three cooperative learning goals.

6.3 Implications for Teachers

Several implications of the research findings of this study can be drawn for classroom teachers involved in the education of second language learners. One implication relates to the way cooperative learning is perceived and handled by L2 students. Another implication concerns tensions involved in cooperative learning dilemmas. A further implication addresses the dilemmatic nature of cooperative learning.

6.3.1 Cooperative Learning Not Always Well Appreciated

Cooperative learning as a language socialization activity reflects bigger differences in educational cultures. In situations where students from different educational and cultural
backgrounds study in Canadian schools, there is a possibility of a clash of educational cultures. Students may in part accept the Canadian educational culture and in part cling to their deeply held values and beliefs about learning and about education in general. They may have reservations and different opinions about what is done well in the classroom. They may understand cooperative learning in the context of the educational culture they are used to, and agree with some of the cooperative learning features, but disagree with others. As an educational innovation, cooperative learning may not be always well appreciated by second language learners. (For the mismatch between teacher intention and learner interpretation regarding cooperative learning, see Kinsella, 1996; Kumaravadivelu, 1991; Richards & Lockhart, 1994. See also Barkhuizen, 1998; Block, 1994, 1996; Nunan, 1993, 1995, for the gap between teacher/learner perceptions of classroom tasks.)

Teachers in the Canadian educational context will wish to explore how cooperative learning can be a matter of dilemmas for second language learners, and how dilemmas can arise from conflicts of social and cultural values. If teachers are not sensitive to the presence of dilemmas and the conflicts and tensions involved, L2 students' learning in small groups may be impeded. Teachers may assign L2 students to work in groups with all the ideal goals of cooperative learning in mind, while L2 students may interpret the group activities in a culturally divergent way that may in fact subvert the goals teachers have. This cultural context of cooperative learning needs to be recognized and acknowledged.

6.3.2 Managing Dilemmas and Reducing Tensions

The findings of this study present a range of cooperative learning dilemmas, which in some cases were spelled out by the Chinese immigrant students through interviews, and in some cases came up from the discourse data obtained through classroom observations. In her
discussion of dilemmas of family money management and resolutions for the dilemmas, Lave (1988) pointed out, “a dilemma has no factual solution, no general, in principle, correct answer. It is a matter of . . . viable alternatives, which are neither right nor wrong, and none of which is entirely satisfactory” (p. 139). This description of the nature of dilemmas indicates that the conflicts Chinese immigrant students encountered with cooperative learning dilemmas in ESL classes may not be easily resolved. However, dilemmas “can be managed” (Tracy, 1997, p. 144), and the tensions involved in these dilemmas will not go away but can be reduced. When the web of dilemmas inherent in the practice of cooperative learning is confronted and managed, and tensions and contradictions involved reduced, the goals claimed for cooperative learning may be achieved partially, some of the time. The questions then are: How can cooperative learning dilemmas be managed? How can the tensions and contradictions involved be reduced?

6.3.2.1 Cooperative Learning as a Technical Solution?

In some quarters, cooperative learning may be seen as a simple technical solution to language and content learning problems in second language education. On this view, if the appropriate conditions for cooperative learning are provided, then students will work satisfactorily. In other words, if cooperative learning is designed and implemented correctly, students will not express any problems. If there are problems, then cooperative learning is not implemented correctly. But, as suggested by the findings of this study, cooperative learning may be a situation in which students have to grapple with dilemmas that are rarely clear cut, and in which they have to struggle to come to terms with these conflicting alternatives because there is not and cannot be a ready-made authoritative solution. The human messiness of cooperative learning dilemmas raised in this study is not something avoidable. Nor can it be easily solved.
6.3.2.2 Schools as Learning Organizations

The findings of this study indicate that cooperative learning makes demands on students' educational cultures. L2 students coming from an educational culture different from the Canadian one are learning how to do cooperative learning in class and they are learning how to cope with cooperative learning dilemmas. Their learning of this instructional strategy as part of the Canadian educational culture is part of their language socialization process. Teachers who are involved in the education of L2 students and who use cooperative learning in class have the responsibility to learn what dilemmas their students encounter with this instructional strategy and how these dilemmas arise in the first place. Learning together with L2 students is an important task for teachers in multilingual and multicultural schools.

Schools are organizations consisting of different parties: teachers, students, parents, administrators, researchers, and so forth. Schools with linguistically and culturally diverse populations will increasingly need to examine the complex interactions among participants and respond to conflict and change. As discourse communities, they will need to become reflectively multicultural and multilingual learning organizations, “organizations . . . where people are continually learning how to learn together” (Senge, 1990, p. 3).

6.3.2.3 Awareness of Self’s and Other’s Mental Models

In their exploration of a Chinese culture of learning as compared to Western ones, Cortazzi and Jin (1996) pointed out, “in principle, there is no reason to suppose that one culture of learning is superior to another. There are different cultures of learning which may be more or less appropriate to the larger societies in which they are located . . . . Further, there is no reason in principle why different cultures of learning should be mutually exclusive. Rather, different
ways might be reconciled or interwoven. This can be done only when we know what they are” (p. 174).

To know students’ culture of learning and their culture of teaching, teachers working with L2 learners may need to become more aware of their own mental models and the mental models of their L2 students. For Senge (1990), mental models are “deeply ingrained assumptions . . . that influence how we understand the world and how we take action” (p. 8). They tend to determine how people see things and how they operate. With learning organizations where different parties have different mental models, the question is then: What strategies can they use to make different parties work together towards some kind of consensus, or in other words, “an understanding of shared mental models” (p. 178). Senge suggests that one strategy is to bring the assumptions of mental models to the surface. Often, people are not aware of the assumptions they make. When they are unaware of the assumptions, a factor related to cooperative learning which looks perfectly reasonable to one party may look unreasonable to the other, and vise versa. Bringing the hidden assumptions about cooperative learning to consciousness can provide a basis for developing mutual understanding between teachers and their L2 students.

In order to bring selves’ and students’ hidden assumptions of mental models to the surface, teachers may need to strike a balance between advocating for their point of view and inquiring into L2 students’ point of view, or between taking a position and remaining open for different opinions. By balancing inquiry and advocacy, teachers can learn more about L2 students’ views while L2 students can learn more about teachers’. As Senge (1990) proposed, “when inquiry and advocacy are combined, the goal is no longer ‘to win the argument’ but to find the best argument” (p. 199). (For details of Balancing Inquiry and Advocacy technique, see Senge, 1990, pp. 198-202; and Senge, Kleiner, Roberts, Ross, & Smith, 1994, pp. 253-259.)
Teachers can also adopt a more deliberate consciousness-raising approach (Cortazzi & Jin, 1996) to teaching so that they will reflect on their own theory and practice of cooperative learning. Meanwhile, they can adopt the same approach to learning so that their L2 students can develop a reflective approach to their perceptions and actions of cooperative learning, so that students can recognize the conflicts and tensions they have and how their educational and cultural history adds to the complexity of the dilemmatic situation, so that they can be in dialogue with themselves, among themselves, and with teachers to "clarify their assumptions, discover internal contradictions in those assumptions, and think through new strategies based on new assumptions" (Senge, 1990, p. 178), and so that their learning of a second language and culture becomes a reflective language socialization process.

6.3.2.4 Negotiating the Differences

With remarkably diverse student populations, Canadian schools have become increasingly pluralistic communities. As learning organizations in the modern world, what do they do with such pluralism? Must they simply accept the irreducible plurality of educational cultures, values, beliefs, and so on? Or, is it possible for them to create conditions for a conversation between diverse voices “to see if the seemingly incommensurable values, conceptual frameworks and other characteristics . . . can be articulated in a more comprehensive account, and . . . reconciled, not once and for all but in the course of the conversation” (Tully, 1994, p. xiv, emphasis in the original text)?

For Taylor (1994), it is not only possible but desirable that organizations such as schools face up to this challenge of pluralism by providing opportunities for different parties to engage in a continuing dialogue across deep diversity as imaginative exploration rather than universal reason. He suggested that all parties strive to achieve some commonly shared aims through
dialogues. One aim is to listen to other voices, because “each of our voices has something unique to say” (p. 30). Another aim is to recognize and understand differences. “Recognition is not just a courtesy,” but “a vital human need” (p. 26). And “nonrecognition or misrecognition can inflict harm, can be a form of oppression, imprisoning someone in a false, distorted, and reduced mode of being” (p. 25). A further aim is to respect differences, so that “we all recognize the equal value of different cultures; . . . we not only let them survive, but acknowledge their worth” (p. 64, emphasis in the original text). Another further aim is to negotiate and accommodate differences, not for their own sake, but because negotiating and accommodating differences allows the various parties to do great things together (Taylor, 1997). For organizations where different parties are continually learning how to learn together, learning does not just result in taking in new information and forming new ideas; learning is supposed to eventually result in changes in action.

As has been discussed earlier in this section, dilemmas of cooperative learning are not something easy to resolve. However, if teachers prepare to continually learn how their L2 students conceive and do cooperative learning in class, if they adopt a reflective approach to teaching and learning to bring their own and students’ mental models of cooperative learning to consciousness, if they engage in a continuing dialogue with their L2 students to negotiate the differences of their assumptions, then they are taking steps towards managing cooperative learning dilemmas, and then it can be hoped that the tensions and contradictions their L2 students experience with cooperative learning will be reduced. “With an attitude of being willing to learn, understand and appreciate the other’s educational culture,” teachers and their L2 students will both benefit, “without losing their own cultural status, role or identity” (Cortazzi & Jin, 1996, p. 201).
6.3.3 Dilemmas as a Driving Force for Improvement

It needs to be pointed out that it is not necessarily a disadvantage that cooperative learning in the second language classroom possesses its dilemmatic quality. It can be said that the very existence of dilemmas provides essential seeds for productive thought (Billig et al., 1988). Without the presence of contrary themes in Chinese students’ perceptions and discourses, there would probably be no way of understanding how different educational cultures and socially shared values came into collision, and how Chinese students were caught in the push-and-pull alternatives.

The problems with dilemmas do not lie in that tensions involved cannot be easily resolved. The problems with dilemmas arise when they exist below the level of consciousness. If teachers involved in the education of second language learners remain unaware of cooperative learning dilemmas students encounter in class, their mental models of this instructional strategy will remain unexamined. Because they are unexamined, their mental models of cooperative learning will remain unchanged. As the student body engaged in cooperative learning activities changes, a gap will emerge and widen between teachers’ mental models and the classroom reality, and between teachers’ mental models and those of L2 students, which may lead to increasingly counterproductive actions.

However, when teachers become aware of cooperative learning dilemmas, when they start to examine their hidden assumptions of cooperative learning and inquire into those of their L2 students, when they and their L2 students become more able to surface and negotiate productively their different ways of looking at cooperative learning, dilemmas may become the energy that drives teachers and their students to arrive at new insights, to change, and to improve. As Senge (1990) put it, “a learning organization is a place where people are continually discovering how they create their reality. And how they can change it” (p. 13). Cooperative learning
learning is an area in the organization where teachers and students have the power to take action if they are really serious about the need for change. Understood in this sense, the dilemmatic nature of cooperative learning should be appreciated.

6.4 Reflections on the Study

This study has been a valuable learning experience for the researcher, not only in terms of conducting field research in natural classroom settings, but also in terms of her understanding of cooperative learning as experienced by its participants in the real world of the classroom as well as conceptualized by theorists in the literature. Through working forwards and backwards, the study has become personally meaningful to her as the researcher. She has also come to recognize that the results of this research are a partial picture of a larger scene.

6.4.1 A Partial Picture of a Larger Scene

The Chinese immigrant students in this study provided a complex picture of cooperative learning in the ESL classroom. However, it is a partial picture of a larger scene, and is unlikely to be the whole “truth” for at least two reasons. First, although this study lasted two years, it was carried out with a specific group of Chinese immigrant students at specific points of time. These students had been studying in the Canadian school system for less than three years and their English was at relative beginning levels. Different groups of students at different stages of schooling may have different perceptions and generate different discourses of cooperative learning. In addition, the Chinese students in this study came from Taiwan, Hong Kong, and the PRC, all of which may vary in their educational systems. There may be differences among students of these subgroups in their opinions and interactions. As Billig et al. (1988) put it, “one person’s dilemma may not be another’s, should the profits and losses be perceived differently”
To put it in another way, the findings of this study are context-dependent and hence may not be "true" in other contexts. Or, they are limited to the specific context of this study and may not be generalized to different contexts.

Second, students' preconceived ideas or notions about cooperative learning and indeed about learning a second language in general, and consequently their actions during group work in class may change over time (e.g., Kalaja, 1995). The Chinese immigrant students in this study were certainly changing with respect to their development of English proficiency levels, length of stay in Canada, familiarity with the Canadian educational culture, and so on. Their perceptions and discourses of cooperative learning will change in response to these changes. They are dynamic rather than static in nature, and should be treated as part and parcel of their language socialization process.
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Appendix 1: Standardized Interview Questions

STANDARDIZED INTERVIEW

PART A
1. Interview date
   (   ) Day (   ) Month (   ) Year, (   ) - (   ) Time

2. Interview configurations
   (   ) Individual
   (   ) Pair
   (   ) Over two

3. Information about the informant(s)
   Name   Age   Male/Female   First language

4. Location of informants
   (   ) Only studied at Johnson.
   (   ) Used to study at Johnson.
       For how long?
       How long ago?
   (   ) Studied at another English school before coming to Johnson.
       For how long?

5. Please check which best describes you now
   (   ) Currently in the ESL program, except Math & PE.
   (   ) Some ESL courses some regular, Science & Languages.
   (   ) ELC/Transitional Social Studies & English.
   (   ) All regular classes.

PART B
6. In the ESL program, you are/were studying in the same class with students of different ages and experience using English.
   a. Are/were you
      (   ) Among the oldest.
      (   ) About in the middle.
      (   ) Among the youngest.

   b. Is/was your English
      Better than most (   ) (   ) (   ) (   )
      About the same as the others (   ) (   ) (   ) (   )
      Perhaps weaker than most (   ) (   ) (   ) (   )

7. Name two things you like/liked about being with students of different ages.
   a.
   b.
8. Name two things you don’t/didn’t like about being with students of different ages.
   a.
   b.

9. Would you prefer working with students the same age as you?
   (  ) Yes (  ) No Why?

10. Would you rather work with students whose English is
    (  ) Better than yours.
    (  ) The same as yours.
    (  ) Not as good as yours.
    Why?

PART C
11. Name two things you like/liked about working in groups.
    a.
    b.

12. Name two things you don’t/didn’t like about working in groups.
    a.
    b.

13. Would you prefer working individually in ESL classes?
    (  ) Yes (  ) No Why?

14. Do/did you think that ESL teachers expect the students to take too much responsibility for their own learning?
    (  ) Yes (  ) No
    What makes/made you think so?

15. Do/did you think you can/could improve your English through studying subjects like Science, Family Studies, Social Studies, etc.?
    (  ) Yes (  ) No
    What makes/made you think so?

PART D
16. How much of the time do/did you speak only English in class?
    (  ) All the time (  ) Most of the time (  ) Not a lot (  ) Almost none

17. Give a star to the courses in which you speak/spoke the most English. Rank the top five. 1 is the course in which you speak/spoke the most. 5 is the least.
    ESL Science
    ESL Social Studies
    ESL Foods
    ESL Clothing
    ESL Family Management
    ESL Oral
    ESL Composition/Process Writing
18. Do/did you sometimes speak your native language (e.g., Mandarin, Cantonese) in the ESL classes?
   ( ) Yes ( ) No
   When do/did you tend to speak your native language in the ESL classes?
   Why?

19. Do/did you feel peer pressure not to speak English in class?
   ( ) Yes ( ) No
   Explain the kind of pressure you feel.

PART E
20. ESL courses are/were useful ( ) Very ( ) Quite ( ) Not very much

21. ESL courses are/were necessary ( ) Very ( ) Quite ( ) Not very much

22. Do/did you think you’ve been in ESL too long?
   ( ) Yes ( ) No
   How soon do/did you hope to move into regular classes?

23. Do/did your parent think that you are spending/spent too long in ESL?
   ( ) Yes ( ) No
   How soon do/did they expect you to move into regular classes?

PART F
24. Name two of the most useful things you are learning/learned in ESL.
   a. 
   b. 

25. Name two things which most help/helped improve your English?
   a. 
   b. 

26. What two recommendations would you make to new ESL students?
   a. 
   b. 

27. What kind of things do you think new ESL students need in order to move into regular classes as quickly as possible?

28. What one thing would you recommend to make the ESL Program better?
Appendix 2: Chinese Students’ Responses to Interview Questions (1)

Notes:
L1 = first languages  C = Cantonese, M = Mandarin  Y/N = sometimes yes and sometimes no
Q11 = What are the kind of things you like about working in groups?  Q12 = What are the kind of things you don’t like about working in groups?
Q13 = would you prefer working individually in ESL classes? Why?

<table>
<thead>
<tr>
<th>Ss</th>
<th>Age</th>
<th>Sex</th>
<th>L1</th>
<th>Question 11</th>
<th>Question 12</th>
<th>Q13</th>
<th>Question 13</th>
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<tbody>
<tr>
<td>S1</td>
<td>13</td>
<td>m</td>
<td>C</td>
<td>more information, can share work</td>
<td>sometimes too many ideas</td>
<td>Y</td>
<td>talk too much in groups and forget to do the work</td>
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<tr>
<td>S2</td>
<td>13</td>
<td>f</td>
<td>C</td>
<td>can share ideas, know more about friends</td>
<td>get into argument about what ideas to use</td>
<td>N</td>
<td>boring to study on your own</td>
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<td>S3</td>
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<td>M</td>
<td>sometimes being unable to do the work on my own, can discuss with others</td>
<td>sometimes not agreeing with each other, getting into bickering</td>
<td>N</td>
<td></td>
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<tr>
<td>S4</td>
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<td>f</td>
<td>C</td>
<td>more ideas, can learn more through discussion</td>
<td>have to get group consensus</td>
<td>Y</td>
<td>can have own ideas, don’t have to waste time</td>
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<tr>
<td>S5</td>
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<td>C</td>
<td>cooperation</td>
<td>talk too much in their first language</td>
<td>Y/N</td>
<td></td>
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<td>S6</td>
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<td>m</td>
<td>C</td>
<td>can discuss, lots of information about project</td>
<td></td>
<td>N</td>
<td>can understand better</td>
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<tr>
<td>S7</td>
<td>15</td>
<td>m</td>
<td>M</td>
<td>can help and teach each other</td>
<td></td>
<td>N</td>
<td>can know who is good and who is weak, have more experience</td>
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<tr>
<td>S8</td>
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<td>f</td>
<td>M</td>
<td>can communicate, feel comfortable</td>
<td>not easy to work with some students</td>
<td>N</td>
<td>have nobody to ask if not understanding something, can help each other</td>
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<td>S9</td>
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<td>f</td>
<td>M</td>
<td>can discuss things we don’t understand, share work load</td>
<td></td>
<td>N</td>
<td>don’t know what to do when on your own</td>
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<td>S10</td>
<td>18</td>
<td>f</td>
<td>M</td>
<td>more ideas</td>
<td>not convenient, takes a few days to finish work</td>
<td>N</td>
<td>can’t discuss when working alone, fewer ideas</td>
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<td>S11</td>
<td>16</td>
<td>f</td>
<td>C</td>
<td>they can help me</td>
<td></td>
<td>N</td>
<td>they will help me</td>
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<tr>
<td>S12</td>
<td>14</td>
<td>f</td>
<td>C</td>
<td>good for new comers</td>
<td>some members not doing their part of work</td>
<td>N</td>
<td>like to work with students who are willing to work</td>
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<tr>
<td>S13</td>
<td>15</td>
<td>m</td>
<td>C</td>
<td>can share work and information, easier to work</td>
<td>sometimes using our own language, talk about something else</td>
<td>N</td>
<td>can learn from other students, e.g., English and homework, hard to work on your own, results not good</td>
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<tr>
<td>S14</td>
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<td>m</td>
<td>C</td>
<td>can share work, work will be better</td>
<td>don’t like to work with someone I don’t like</td>
<td>Y</td>
<td>some people not doing their job, can get a high mark if working on my own</td>
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<tr>
<td>S15</td>
<td>14</td>
<td>m</td>
<td>M</td>
<td>can talk more of both what the teacher asks us to discuss and what we want to talk about</td>
<td>takes a long time to discuss when having different opinions</td>
<td>N</td>
<td>would be difficult if wanting to find someone for help, convenient to help each other when studying together</td>
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<tr>
<td>S16</td>
<td>16</td>
<td>f</td>
<td>M</td>
<td>get different opinions, more fun and more interesting</td>
<td>chitchat, talking in our own language, wasting time, noisy</td>
<td>Y/N</td>
<td>depending on types of work</td>
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<td>S17</td>
<td>16</td>
<td>m</td>
<td>M</td>
<td>each doing less work, can share ideas</td>
<td>can’t do my best, some people being lazy, have to get consensus</td>
<td>Y/N</td>
<td>like to do big projects in groups, but can show the teacher my own effort if working individually</td>
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<tr>
<td>S18</td>
<td>13</td>
<td>f</td>
<td>C</td>
<td>can share ideas, can work better</td>
<td>sometimes don’t agree with each other, can’t show your work to the teacher</td>
<td>N</td>
<td>easier to work in groups, don’t have to do the work all by yourself</td>
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<tr>
<td>S19</td>
<td>14</td>
<td>f</td>
<td>M</td>
<td>don’t need to do all work, can share work, can talk</td>
<td>not feeling comfortable when not understanding other people’s L1, e.g., Cantonese, people not agreeing with your ideas</td>
<td>N</td>
<td>can learn more, don’t have to work that hard</td>
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<td>S20</td>
<td>16</td>
<td>f</td>
<td>M</td>
<td>can get a lot of ideas, not just one or two</td>
<td>some people not doing their work, not fair</td>
<td>Y/N</td>
<td>can get a lot of ideas in groups, but can get into argument, would want to work on my own if in a rush</td>
</tr>
<tr>
<td>S21</td>
<td>13</td>
<td>m</td>
<td>M</td>
<td>can share ideas, don’t have to work as hard, can divide the work</td>
<td>some ideas being funny, don’t like them</td>
<td>Y</td>
<td>can just do the work, don’t have to wait for another day to ask them if they like my ideas</td>
</tr>
<tr>
<td>S22</td>
<td>16</td>
<td>m</td>
<td>M</td>
<td>can have all kind of ideas, can understand how to do group work</td>
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<td>Y</td>
<td>no one can bother me, can have my own opinion</td>
</tr>
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<td>Ss</td>
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<td>Sex</td>
<td>L1</td>
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<tr>
<td>S23</td>
<td>15</td>
<td>f</td>
<td>M</td>
<td>can exchange ideas, can get more knowledge</td>
<td></td>
<td>N</td>
<td>can practice English, can have many ideas and do the best job</td>
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<tr>
<td>S24</td>
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<td>f</td>
<td>M</td>
<td>can ask others</td>
<td>sometimes too many ideas and getting into argument</td>
<td>N</td>
<td>can learn more, can learn from each other</td>
</tr>
<tr>
<td>S25</td>
<td>16</td>
<td>m</td>
<td>C</td>
<td>can have more ideas, can do things faster</td>
<td>sometimes noisy</td>
<td>N</td>
<td>takes longer time working alone, hard if not understanding something</td>
</tr>
<tr>
<td>S26</td>
<td>15</td>
<td>m</td>
<td>M</td>
<td>can do work quickly, can practice English</td>
<td></td>
<td>N</td>
<td>might get stuck in some questions and not knowing how to do them, won’t get help from others</td>
</tr>
<tr>
<td>S27</td>
<td>13</td>
<td>m</td>
<td>C</td>
<td>can talk, can have more ideas</td>
<td></td>
<td>N</td>
<td>can work better with a group, have many ideas, can mix ideas together</td>
</tr>
<tr>
<td>S28</td>
<td>15</td>
<td>m</td>
<td>M</td>
<td>can learn others’ ideas and information, can put ideas together, can make friends</td>
<td></td>
<td>N</td>
<td>too lonely to study on one’s own, more interesting to study with other students</td>
</tr>
<tr>
<td>S29</td>
<td>16</td>
<td>f</td>
<td>M</td>
<td>can get different ideas</td>
<td>sometimes too noisy, talking too much in Mandarin</td>
<td>Y</td>
<td>like to work individually</td>
</tr>
<tr>
<td>S30</td>
<td>14</td>
<td>m</td>
<td>M</td>
<td>don’t need to do too much, more ideas</td>
<td>don’t know what to choose when having different opinions</td>
<td>Y</td>
<td>don’t cooperate well with others, never cooperated with others before, always worked alone</td>
</tr>
<tr>
<td>S31</td>
<td>14</td>
<td>f</td>
<td>M</td>
<td>can improve your oral English, can have different opinions</td>
<td>some people taking their opinions as the best, won’t let you speak</td>
<td>N</td>
<td>harmonious working together</td>
</tr>
<tr>
<td>S32</td>
<td>15</td>
<td>m</td>
<td>C</td>
<td>like working in groups, but can’t tell why</td>
<td></td>
<td>N</td>
<td>others can help me in groups because my English is weak</td>
</tr>
<tr>
<td>S33</td>
<td>14</td>
<td>m</td>
<td>M</td>
<td>can work faster, easier to solve problems</td>
<td>sometimes having different opinions and getting into quarrel</td>
<td>N</td>
<td>faster if working together, can chat when finishing the work</td>
</tr>
<tr>
<td>S34</td>
<td>15</td>
<td>m</td>
<td>M</td>
<td>can communicate with others, can do things that you can’t do on your own</td>
<td>some people sticking to their ideas, some not liking to speak English and would scold you if you do</td>
<td>N</td>
<td>easier when work together</td>
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<tr>
<td>Ss</td>
<td>Age</td>
<td>Sex</td>
<td>L1</td>
<td>Question 11</td>
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<tr>
<td>S35</td>
<td>15</td>
<td>f</td>
<td>M</td>
<td>feel successful when finishing a project, can share the honor with group members</td>
<td>some students being lazy, have to do all the work yourself</td>
<td>N</td>
<td>fun to work together, can ask others if not understanding something</td>
</tr>
<tr>
<td>S36</td>
<td>15</td>
<td>f</td>
<td>M</td>
<td>more ideas, brave students can voice the group’s opinions, less brave students can do the writing</td>
<td>some students thinking they are right in everything and taking their ideas as the best</td>
<td>N</td>
<td>better to work together</td>
</tr>
<tr>
<td>S37</td>
<td>16</td>
<td>f</td>
<td>M</td>
<td>can provide your ideas, can work with different people</td>
<td>if someone in your group not wanting to work, the group mark will be lowered, some doing more and some less, not fair</td>
<td>N</td>
<td>like to work together with others</td>
</tr>
<tr>
<td>S38</td>
<td>15</td>
<td>m</td>
<td>M</td>
<td>can discuss with classmates, can help each other</td>
<td></td>
<td>N</td>
<td>new experience, feeling good</td>
</tr>
<tr>
<td>S39</td>
<td>16</td>
<td>m</td>
<td>C</td>
<td>can discuss, can talk</td>
<td></td>
<td>N</td>
<td>easier to discuss with classmates</td>
</tr>
<tr>
<td>S40</td>
<td>16</td>
<td>m</td>
<td>M</td>
<td>more ideas, can mix everybody’s opinions together</td>
<td>sometimes too noisy, difficult to get organized</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>S41</td>
<td>17</td>
<td>m</td>
<td>C</td>
<td>can discuss together</td>
<td>some students not wanting to work with us in a group</td>
<td>N</td>
<td>can learn more things</td>
</tr>
<tr>
<td>S42</td>
<td>16</td>
<td>m</td>
<td>M</td>
<td>can let good students do the work, can have a rest</td>
<td>having to do all the work if in a group with weak students, not pleasant when you want to write something but others don’t like it</td>
<td>Y/N</td>
<td>easier to get by in groups, don’t have to read as much, can correct each other in groups</td>
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<tr>
<td>S43</td>
<td>14</td>
<td>m</td>
<td>C</td>
<td>don’t have to do everything, can discuss in groups</td>
<td>having to work for some people who don’t do their part of the job</td>
<td>Y</td>
<td>can have my own ideas, don’t like to share my ideas with others</td>
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<tr>
<td>S44</td>
<td>15</td>
<td>m</td>
<td>M</td>
<td>can discuss with others, can know what others think</td>
<td></td>
<td>N</td>
<td>making you want to learn with others if they can do something and you can’t</td>
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<tr>
<td>S45</td>
<td>17</td>
<td>f</td>
<td>C</td>
<td>can share ideas and choose the best one</td>
<td>some people doing more work and some doing less, not fair</td>
<td>Y</td>
<td>preferring to learn in groups, but not to work in groups</td>
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<td>S46</td>
<td>16</td>
<td>m</td>
<td>C</td>
<td>can practice English, can make more friends</td>
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<td>N</td>
<td>can help each other</td>
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<tr>
<td>S47</td>
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<td>f</td>
<td>C</td>
<td></td>
<td>convenient to work on your own</td>
<td>Y</td>
<td>convenient to work alone</td>
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<tr>
<td>S48</td>
<td>16</td>
<td>m</td>
<td>M</td>
<td>don’t need to work on a project alone, work becoming lighter, can learn more</td>
<td>some partners not wanting to do their part of the work</td>
<td>N</td>
<td>easier to work in groups</td>
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<tr>
<td>S49</td>
<td>16</td>
<td>m</td>
<td>M</td>
<td>can work faster, more ideas</td>
<td>may quarrel when having different opinions</td>
<td>N</td>
<td>easier to find more information</td>
</tr>
</tbody>
</table>
Appendix 3: Chinese Students’ Responses to Interview Questions (2)

Notes:
Y/N = yes and no  Q18 = Do/did you sometimes speak your first language in ESL classes?
Q18(2) = When do/did you tend to speak your first language in ESL classes? Q18(3) = Why?
Q19 = Do/did you feel peer pressure not to speak English in classes? Q19(2) = Explain the kind of pressure you feel.
Q26 = What recommendations would you make to new ESL students?

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<th>Q 18(3)</th>
<th>Q19</th>
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<td>m</td>
<td>C</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td>easier, can explain more clearly</td>
<td></td>
<td>N</td>
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<td>S2</td>
<td>13</td>
<td>f</td>
<td>C</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td>about social things, difficult words, teacher instructions</td>
<td>easy to speak L1, troublesome to speak L2</td>
<td>Y</td>
<td>being disliked if speaking L2, can be together with friends if speaking L1</td>
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<tr>
<td>S3</td>
<td>13</td>
<td>f</td>
<td>M</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td>about English, teacher’s instructions</td>
<td>natural, easy</td>
<td>Y</td>
<td>afraid of being laughed at when making mistakes</td>
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<td>S4</td>
<td>13</td>
<td>f</td>
<td>C</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td>about social things, when explaining to others</td>
<td>easy to express, can’t express in English</td>
<td>Y</td>
<td>afraid of being considered as showing off</td>
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<td>S5</td>
<td>15</td>
<td>m</td>
<td>C</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td>when not knowing how to do something</td>
<td>easy to ask questions, easy to understand</td>
<td>N</td>
<td>speak more English, stay close with students from other countries</td>
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<tr>
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<td>Age</td>
<td>Sex</td>
<td>L1</td>
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<td>Q13</td>
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<td>Q 18(2)</td>
<td>Q 18(3)</td>
<td>Q19</td>
<td>Q 19(2)</td>
<td>Q 26</td>
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<td>C</td>
<td>Y</td>
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<td></td>
<td>about homework and project</td>
<td>hard/difficult to express in English, easy in L1</td>
<td>N</td>
<td></td>
<td>speak English in class</td>
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<td>M</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td>about words I don't know, chatting</td>
<td>convenient</td>
<td>N</td>
<td></td>
<td>try your best not to speak L1, speak more English</td>
</tr>
<tr>
<td>S8</td>
<td>13</td>
<td>f</td>
<td>M</td>
<td>Y</td>
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<td>about teacher's instructions, social things</td>
<td>natural, like you're still in Taiwan</td>
<td>N</td>
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<td>increase your chance to speak English</td>
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<tr>
<td>S9</td>
<td>18</td>
<td>f</td>
<td>M</td>
<td>Y</td>
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<td>about school work</td>
<td>easy to understand, being used to speaking L1</td>
<td>Y</td>
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<td>don't stay too close with people from your own country, that reduces your chance to speak English</td>
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<td>about class work, chatting</td>
<td>comfortable to speak Chinese, troublesome to speak English</td>
<td>N</td>
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<td>strange to speak English to other Chinese, unless you want to show off</td>
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<td>S11</td>
<td>16</td>
<td>f</td>
<td>C</td>
<td>Y</td>
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<td>when not knowing some words, or how to put them in sentences</td>
<td>easy to communicate</td>
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<td>speak English to me</td>
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<td>they won't understand if I explain in English</td>
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<td>don't speak Chinese</td>
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<td>Y</td>
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<td>much easier in L1, easy to express</td>
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<td>S15</td>
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<td>Y</td>
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<td>Y</td>
<td>afraid of making mistakes</td>
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<td>Y</td>
<td>afraid of being thought of as showing off, afraid of being ignored</td>
<td>try to always speak English even if it’s very hard</td>
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<td></td>
<td>Y</td>
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<td>Y</td>
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<td>L1</td>
<td>Q11</td>
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<tr>
<td>S18</td>
<td>13</td>
<td>f</td>
<td>C</td>
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<td>Y</td>
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<td>about our work and personal things</td>
<td>feeling very stupid / strange to speak English to other Chinese, faster in L1</td>
<td>Y</td>
<td>afraid of being considered as showing off and disliked by other Chinese if speaking English</td>
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<td>M</td>
<td>not feeling comfortable when not understanding other people’s L1, e.g., Cantonese</td>
<td>Y</td>
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<td>about meaning of words, borrowing things from others, chatting</td>
<td>faster and more convenient to us L1</td>
<td>Y</td>
<td>afraid of being considered as showing off if speaking English</td>
<td></td>
<td>speak more English</td>
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<tr>
<td>S20</td>
<td>16</td>
<td>f</td>
<td>M</td>
<td></td>
<td>Y</td>
<td></td>
<td>about schoolwork or how to do things, asking for others’ opinions</td>
<td>feeling very strange speaking English to other Chinese, also taking longer, easier in Chinese</td>
<td>Y</td>
<td>some people talking back in Chinese even if you speak English to them</td>
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<td>S21</td>
<td>13</td>
<td>m</td>
<td>M</td>
<td></td>
<td>Y</td>
<td></td>
<td>about school life, class work, jokes</td>
<td>everyone speaking Chinese, having to do the same as others</td>
<td>Y</td>
<td>afraid of being ignored</td>
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<td>S22</td>
<td>16</td>
<td>m</td>
<td>M</td>
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<td>Y</td>
<td></td>
<td>explaining things to others, joking</td>
<td>can’t understand if I explain in English</td>
<td>N</td>
<td>speaking more English</td>
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<tr>
<td>Ss</td>
<td>Age</td>
<td>Sex</td>
<td>L1</td>
<td>Q 11</td>
<td>Q 12</td>
<td>Q 13</td>
<td>Q18</td>
<td>Q 18(2)</td>
<td>Q 18(3)</td>
<td>Q19</td>
<td>Q 19(2)</td>
<td>Q 26</td>
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<td>S23</td>
<td>15</td>
<td>f</td>
<td>M</td>
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<td></td>
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<td>Y</td>
<td>explaining what the teacher has said</td>
<td>can't express in English</td>
<td>N</td>
<td>not liking to speak</td>
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<td>f</td>
<td>M</td>
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<td></td>
<td></td>
<td>Y</td>
<td>when not knowing how to say some vocabulary in English</td>
<td>easy to understand, being used to speak Chinese</td>
<td>N</td>
<td>make Canadian friends or Chinese who don't know Chinese</td>
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<tr>
<td>S25</td>
<td>16</td>
<td>m</td>
<td>C</td>
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<td></td>
<td></td>
<td>Y</td>
<td>when not knowing how to explain in English, or vocabulary</td>
<td>more comfortable, very easy to talk in L1</td>
<td>N</td>
<td>talk more in English in class</td>
<td></td>
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<tr>
<td>S26</td>
<td>15</td>
<td>m</td>
<td>M</td>
<td>can practice English</td>
<td></td>
<td></td>
<td>Y</td>
<td>asking about answers</td>
<td>can explain clearly in L1, others may not understand me if I speak English</td>
<td>Y</td>
<td>afraid of being considered as showing off and being ignored by others</td>
<td></td>
</tr>
<tr>
<td>S27</td>
<td>13</td>
<td>m</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td>Y</td>
<td>when not knowing how to say something in English</td>
<td>easier to talk in my first language</td>
<td>Y</td>
<td>afraid of being ridiculed by other Chinese</td>
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<tr>
<td>S28</td>
<td>15</td>
<td>m</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td>Y</td>
<td>asking about school work, discussing</td>
<td>being used to speaking L1, not used to speaking English</td>
<td>N</td>
<td>when others speaking to me in L1, I'll speak back in L1</td>
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</table>

Q11: can practice English
Q12: explaining what the teacher has said
Q13: when not knowing how to say some vocabulary in English
Q18: easy to understand, being used to speak Chinese
Q18(2): more comfortable, very easy to talk in L1
Q18(3): can explain clearly in L1, others may not understand me if I speak English
Q19: afraid of being considered as showing off and being ignored by others
Q19(2): afraid of being ridiculed by other Chinese
Q26: when others speaking to me in L1, I'll speak back in L1
<table>
<thead>
<tr>
<th>Q11</th>
<th>Q12</th>
<th>Q13</th>
<th>Q14</th>
<th>Q15</th>
<th>Q16</th>
<th>Q17</th>
<th>Q18</th>
<th>Q19</th>
<th>Q20</th>
<th>Q21</th>
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<tbody>
<tr>
<td>talk too much in Mandarin</td>
<td>not comfortable talking in English</td>
<td>afraid of being considered as showing off</td>
<td>afraid of being considered as showing off</td>
<td>afraid of being considered as showing off</td>
<td>not speak your own languages, speak more English</td>
<td>don't speak English in class</td>
<td>don't speak English in class</td>
<td>afraid of being considered as showing off</td>
<td>don't speak English in class</td>
<td>not speak your own languages, speak more English</td>
</tr>
<tr>
<td>talk too much in Mandarin</td>
<td>afraid of being considered as showing off</td>
<td>afraid of being considered as showing off</td>
<td>afraid of being considered as showing off</td>
<td>not speak your own languages, speak more English</td>
<td>don't speak English in class</td>
<td>don't speak English in class</td>
<td>afraid of being considered as showing off</td>
<td>don't speak English in class</td>
<td>not speak your own languages, speak more English</td>
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<tr>
<td>talk too much in Mandarin</td>
<td>not comfortable talking in English</td>
<td>afraid of being considered as showing off</td>
<td>afraid of being considered as showing off</td>
<td>afraid of being considered as showing off</td>
<td>not speak your own languages, speak more English</td>
<td>don't speak English in class</td>
<td>don't speak English in class</td>
<td>afraid of being considered as showing off</td>
<td>don't speak English in class</td>
<td>not speak your own languages, speak more English</td>
</tr>
</tbody>
</table>

**Sex**
- M: Male
- F: Female

**Age**
- 14: 14 years old
- 15: 15 years old

**Language**
- C: Chinese
- E: English
<table>
<thead>
<tr>
<th>Ss</th>
<th>Age</th>
<th>Sex</th>
<th>L1</th>
<th>Q 11</th>
<th>Q 12</th>
<th>Q 13</th>
<th>Q 18</th>
<th>Q 18(2)</th>
<th>Q 18(3)</th>
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<td>S35</td>
<td>15</td>
<td>f</td>
<td>M</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td>chatting, asking others about something I don’t understand</td>
<td>because it’s my mother tongue</td>
<td>Y</td>
<td>some students not liking you to speak English if their English is not as good as yours</td>
<td>speak English even if you make mistakes</td>
</tr>
<tr>
<td>S 36</td>
<td>15</td>
<td>f</td>
<td>M</td>
<td>Y</td>
<td></td>
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<td></td>
<td>faster to use Chinese first then English in discussion</td>
<td>just following everyone else</td>
<td>Y</td>
<td>afraid of being considered as showing off</td>
<td>just speak English, don’t care about what others thing of you</td>
</tr>
<tr>
<td>S 37</td>
<td>16</td>
<td>f</td>
<td>M</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td>most of time in ESL classes</td>
<td>easy to speak Chinese, can’t express well in English</td>
<td>Y</td>
<td>some may feel inferior if you speak English to them</td>
<td>better not let too many people know that you speak Chinese, so you won’t feel pressure when speaking English, others would also speak English to you</td>
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<td>m</td>
<td>M</td>
<td>Y</td>
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<td></td>
<td>when can’t express in English, chatting</td>
<td>convenient and smooth to speak Chinese, not familiar with English, feeling strange</td>
<td>Y</td>
<td>afraid of being considered as showing off</td>
<td>speak more English</td>
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<tr>
<td>S39</td>
<td>16</td>
<td>m</td>
<td>C</td>
<td>Y</td>
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<td></td>
<td>about words we don’t know, about other things like games</td>
<td>easy to speak Chinese, difficult to express in English</td>
<td>N</td>
<td></td>
<td>speak more English</td>
</tr>
<tr>
<td>Ss</td>
<td>Age</td>
<td>Sex</td>
<td>L1</td>
<td>Q 11</td>
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<td>Q 18</td>
<td>Q 18(2)</td>
<td>Q 18(3)</td>
<td>Q 19</td>
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<td>16</td>
<td>m</td>
<td>M</td>
<td>Y</td>
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<td>in discussion, about class work</td>
<td>not used to discussing in English, difficult to express in English</td>
<td>Y</td>
<td>others may find it strange if they speak Chinese to you but you speak English to them</td>
<td>speak more English, stay with people who speak only English</td>
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<td>asking about what the teacher has said</td>
<td>English not good enough</td>
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<td>about class, texts</td>
<td>convenient to speak Chinese, a habit, feeling uncomfortable to speak English</td>
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<td>everyone speaking Chinese, it won’t do if you don’t, afraid of being considered as showing off</td>
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<td>asking others for help when I have problems, about words, teachers’ instructions</td>
<td>easier to speak Chinese, quicker</td>
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<td>don’t speak Chinese in class</td>
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<td>whenever I speak to my classmates</td>
<td>feeling strange to speak English, easier and faster to speak Chinese</td>
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<td>when the teacher is not there, whenever there is a chance</td>
<td>convenient, English not good, may misunderstand each other if speaking English</td>
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<td>Sex</td>
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<td>Y when talking to students from Hong Kong</td>
<td>easy to express yourself, easy to communicate</td>
<td>Y other students from Hong Kong all speak Cantonese</td>
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<td>S47</td>
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<td>Y when not knowing how to express in English</td>
<td>when not knowing how to express in English</td>
<td>Y/N feeling strange to speak English if others speak Chinese to you</td>
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<td>M</td>
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<td>Y when asking classmates about things I don’t understand</td>
<td>need to ask about things I don’t understand or I’ll get nervous</td>
<td>Y afraid of being considered as showing off</td>
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<td>M</td>
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<td></td>
<td>Y when explaining to others</td>
<td>when asking others about things I don’t understand</td>
<td>N</td>
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