TO ENGLISH LANGUAGE ACQUISITION?

## 05K

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#### Abstract

Against the background of heated debates in Hong Kong concerning whether code-switching between Cantonese (L1) and English (L2) in EMI (English as the Medium of Instruction) content subject lessons facilitates or hinders English language acquisition, with most local linguists and educators asserting the former stand while the Government asserting the latter, this research was carried out to find out the communicative/ pedagogical functions of code-switching; the differences, if any, in the code-switching patterns used by the teachers with student populations of different English proficiency levels, and the insights they give to classroom code-switching.

Content subject lessons of three schools of high, medium and low English standards were audio-taped and analyzed first in a qualitative manner using Conversation Analysis as the tool. The findings confirmed earlier theories on both the positive and the negative functions of code-switching. Then the same findings were analyzed quantitatively using pre-coded categories of the linguistic patterns of the code-switches of the teachers' talk. Findings showed that all-English, intra-sentential code-switching with English as the Matrix Code were correlated with the student population of high English proficiency; inter-sentential code-switching, and intra-sentential code-switching with English inserted at sites at the word-level and beyond the word-level in Cantonese base structures with the student population of medium English proficiency; and insertion of English nouns in Cantonese base structures, with the student population of the lowest English proficiency. The factor of students' English proficiency levels interacted with that of the lesson objectives and subject content to decide on the language patterns used by the teachers.


The inference quality of the above findings was increased by interviews carried out with the teachers and the students from the sampled lessons. And the majority of the teachers and the students interviewed expressed that they favored inter-sentential code-switching over intra-sentential code-switching for English language acquisition in EMI content subject lessons. Subsequently, the researcher recommended that code-switching should be a legitimate strategy but used in a controlled manner. A continuum of code-switching patterns with different degrees of second language penetration was proposed for students of varied English standards.

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## INTRODUCTION

When two or more languages are in a long period of contact, code-switching, the alternation of two or more languages, will very likely become the natural language behavior of the speech community (Appel \& Muysken, 1987; Hoffmann,1991). Hong Kong, the former British colony, the present Special Administrative Region of the People's Republic of China and a cosmopolitan city, is no exception. The alternation of Cantonese, the lingua franca of the majority of the population in the region, and English, the former language of power, the present co-official language with Chinese, and the language of international trade and technological know-how, is common among the Hong Kong Cantonese-English bilinguals in many areas of life including the classroom situation.

Code-switching is especially common in the classroom of EMI (English Medium Instruction) schools, in which English textbooks are used and the English language is supposed to be the medium of instruction. Although the population in Hong Kong is predominately Cantonese ( 89.2 \% according to 2001 Census), EMI schools were the overriding majority ( $84 \%$ according to 1996 \& 97 HK Annual Reports) of secondary schools in the territory before the Government's reforms on education language policy, owing to their popularity to the general population, especially parents, who believe that a good command of English is a guarantee of a good job in the cosmopolitan city. However, since the 1980s, code-switching has been a concern among educators who claim that it is the cause of the alleged drop in language proficiencies in both English and Chinese among Hong Kong students. The Education and Manpower Bureau of Hong Kong (the former Education Department) has since the 1990s started a series of education language policy reforms to help improve students' English proficiency, one
of which is to stipulate mandatory guidelines to ban the use of code-switching in the classroom of EMI schools. In spite of this, whether code-switching hinders or facilitates English language acquisition is still a topic of debate among educators and linguists in Hong Kong and beyond. Studies such as the Linguistic Society of Hong Kong (1992 b) and So (1992) queried the Government's stand on code-switching, saying that it was neither research-based nor practical to require teachers and students to keep the two languages apart, and that code-switching actually helps students to acquire English. It was against such a background that the author attempted to undertake this research study on classroom code-switching in Hong Kong.

- The objectives of this study are to study the communicative/pedagogical functions of classroom code-switching in its totality in relation to learning the subject and learning English, and to explore the micro-linguistic aspect of the issue of classroom code-switching in the Hong Kong educational scene. The research questions are:

1. What pedagogical and communicative functions does code-switching serve in the content subject lessons of the Hong Kong EMI schools?
2. Is there any difference in the code-switching patterns used by the teachers with student populations of different English proficiency levels? If yes, what are they? And what insights into classroom code-switching can the findings give?

The first chapter of this thesis will be the background to the education language policy in Hong Kong and of the language policy reforms which sets the scene of the study. The second chapter will be a selected literature review on the issue of bilingual education and the third, on that of code-switching in Hong Kong and beyond. The fourth chapter will be the research methodology. The fifth and the sixth will be the presentations on findings and analysis. The seventh chapter will be the conclusions
and recommendations.

## CHAPTER ONE BACKGROUND TO THE STUDY

Most enquiries into language policies arise out of a sociolinguistic context. This research study, being no exception, is formulated against the background of a very interesting language community of Hong Kong, which has seen great changes of language policies alongside the changes in the sociopolitical arena. The territory is as unique in its language policy as it is in its change of sovereign power from Great Britain to Communist China. Even with the majority of its population being predominately Chinese and its lingua franca predominately Cantonese, the medium of instruction was English in most secondary schools under the British rule before 1997. Many students, and to some extent, the teachers, do not have English competence on a par with what is required in EMI school curricula, and consequently students' intellectual as well as language development was adversely affected. Although the new SAR (Special Administration Region) Government has been trying to change this phenomenon by positively encouraging the use of mother tongue in secondary schools, this is met with vehement opposition from the community at large. And this time it is the local Chinese community that oppose to the use of their mother tongue as the medium of education. What is at work behind this self-contradictory phenomenon is a complex interplay of socioeconomic and political forces, while the pedagogical factor plays a minor role in it, sad to say. This chapter gives a sociopolitical background to Hong Kong, and the language use in the society and the classroom in part one, traces the historical development of the educational language policy in part two, examines the nature of the dilemma the Government is facing and the ensuing compromise in part three, which all form the background of this research study.

### 1.1. AN INTRODUCTION TO THE HISTORY OF HONG KONG AND ITS LANGUAGE USE

### 1.1.1 A BRIEF INTRODUCTION TO THE HISTORY OF HONG KONG

Hong Kong was before 1840 an insignificant small fishing port with a population of about 3,650 lying off the southern shore of Guangzhou Province of China. The Hong Kong Island was ceded to the British Empire after the British victory over China in the first Sino-British War (or the Opium War) in the Treaty of Nanking in 1842. Subsequently, the New Territories and part of the Kowloon Peninsular north of Boundary Street were leased to the British Empire besides the ceding of the southern part of Kowloon after the Second Sino-British War in the Treaty of Peking in 1897. Under the past hundred and sixty-odd years of British rule, Hong Kong has grown from a little fishing port to firstly an industrialized city with the influx of capital and entrepreneurs from the rich Chinese cities like Canton and Shanghai, and with the unskilled and uneducated cheap labor provided by the refugee mass during the years of political upheaval in the Mainland after the Communist takeover in 1949. In the eighties and the nineties, Hong Kong has flourished into a financial and service center that services the newly opened vast hinterland of the Mainland, linking it with the outside world financially, commercially and technologically. By a turn in History, or rather, the growing power of China and the wave of anti-imperialism and anti-colonialism since the end of the Second World War, the whole of Hong Kong instead of just the leased area was returned to her motherland in 1997 in a peaceful political handover. The almost dramatic sociopolitical development of the Hong Kong society has inevitably led to the continuously changing nature of its language policy, including the education language policy. Before this is dealt with in the next section, it
is necessary to look into the actual language use in the speech community of Hong Kong at large and in the classroom in particular.

### 1.1.2 LANGUAGE USE IN HONG KONG SOCIETY AND THE CLASSROOM

$88.7 \%$ of the total population of Hong Kong are Chinese who speak Cantonese (Census \& Statistics Dept., HK, 2001). Although there are only about 3.1\% of native speakers of English (including citizens from the United States, Canada, Australia and the United Kingdom) residing in Hong Kong, the English language had always been the language of power due to the one hundred and sixty-odd years of British colonial rule before the handover in 1997. English was the only official language of HK until 1974 when Chinese was also accorded official status; it has been the medium of instruction of higher education, and of over $84 \%$ of secondary schools until 1997 when the government stipulated the use of mother tongue in all except 100 secondary schools. Even as it may be losing its status as the language of power after the handover, it is increasingly the language of trade and technological know-how when Hong Kong is striving to retain its status of an international city in the face of competition from other big cities in the region and in China itself.

Given this socio-economic-political situation of Hong Kong, English can be said to be an 'auxiliary language' which serves restricted functions by a restricted section of a society imposed on a vibrant vernacular language spoken by the majority of people in that society (Luke et al,1982). As the English-speaking community and the Cantonese speaking community in Hong Kong seldom interact with each other except in work situations, most Hong Kong Cantonese speakers do not need to speak English except in lectures, classrooms, government departments or international companies where
there are colleagues of other nationalities. Very few Cantonese native speakers (6\% of the bilingual population according to Pennington, 1994) can achieve near-native English standard. Most bilinguals in Hong Kong have 'functional bilingual' standard meaning their English proficiency is only found in areas where they need to use English, like the academic or professional domains (Bolton \& Luke, 1999). Among the HK bilinguals, alternation of English and Cantonese is very common, especially intra-sentential code-switching of English words in Cantonese sentences. Code-switching from Cantonese sentences to English sentences or vice versa, however, is not a common phenomenon except among bilinguals of very high English proficiency or in the classroom situation.

By 1997, 84\% (Hong Kong Annual Report, 1996 \& 97) of secondary schools in Hong Kong were Anglo-Chinese schools, meaning that the medium of instruction in the classroom in all subjects except Chinese and Chinese History was English. However, this was far from the truth in actual practice. Hong Kong Chinese seldom speak English to each other and they are basically separated from the English- speaking communities. The English proficiency of students whose home language is Cantonese and many teachers who seldom speak English outside of the classroom is not on a par with what is required of an English-medium curriculum. This consequently led to the constant use of a mixed code of Cantonese and English in sentences, or in between sentences, which wais condemned by the Hong Kong Government and some educationists as the cause of the allegedly dropping language proficiency in both Chinese and English of the student population. The issue of code-switching has been the main problem addressed by the Government in its reforms on education language policies since the 1990 s, which is the theme of this thesis. Before the development of the language policies in Hong Kong are traced in detail, the following
sections will be an introduction to the mother tongue of the Hong Kong people, that is, Cantonese, and the patterns of code-switching used by the Cantonese-English bilingual population.

### 1.1.3 THE CANTONESE LANGUAGE

Cantonese is generally regarded as a variety among the hundreds of Chinese dialects and is named after the city of Canton (known as Guangzhou in Mandarin), the capital of Guangdong province in southern China. It is spoken by $89 \%$ of the total population of Hong Kong, Macau, the western half of Guangdong and the southern half of Guangxi province (Huang and Kwok, 1999). It is also spoken overseas in Singapore, Malaysia, Toronto and Vancouver in Canada, New York and San Francisco in the United States where there is a sizable Hong Kong immigrant community (Yip and Matthews, 2000). It is different from Putonghua (the common language in its literal sense, or its other name, Mandarin, the language of the officials before the Communist takeover), the official language of the People's Republic of China, which is in the main based on the northern dialect spoken by the people in Beijing. The two varieties vary in their lexicon, syntax, idioms and mostly in phonetics as much as the various Romance languages such as French, Spanish and Italian (Yip and Matthews, 2000), whereas the written form of the High Variety of Cantonese (Luke,1984) is based on Mandarin (Education Commission Report No.6, Part 2, 1995)

Cantonese, like Mandarin, is monosyllabic, i.e. each word is made up of one syllable, which is composed of an initial, a final, and a tone. The initial is the beginning sound, which may be a consonant, a semivowel or a nasal. A final is composed of a main vowel with or without a consonant or semi-vowel as an ending. The consonant stops
'- $p$ ', ' $-t$ ' and ' $-k$ ' are unreleased in final position, i.e. the air stream is closed so that no air is released. The pronunciation of every Cantonese syllable involves a pitch contour of a definite character called the tone. According to the Yale system, there are three main contours with two levels of pitch. The qualities of the three main contours are falling, rising and level. Each has an upper and a lower register, making six tones altogether (Huang \& Kwok, 1999). An initial chart, final chart and tone chart of Cantonese can be found in Appendix 1.

Cantonese grammar is very unlike English grammar. Its verbs have no inflections, and tenses and aspects are expressed by means of verb particles and aspect markers. For instance, the verb particle dou added after a verb indicates completion of an action; aspect marker gan added after a verb plays the same role as the English progress form -ing. There are other grammatical categories which are absent in English grammar, such as classifiers and sentence particles. A brief glossary of some of the categories used in this thesis is included in Appendix 1.

The next section will be a brief description of the common patterns of Cantonese-English code-switching among bilingual speakers in Hong Kong.

### 1.1.4 PATTERNS OF CODE-SWITCHING IN HONG KONG

Past Research findings on code-switching in Hong Kong all reveal that the most common form of code-mixing behavior includes the insertion of English nouns, verbs, adjectives and adverbs into the base language of Cantonese, the mother tongue. The less common ones are insertion of English prepositions, conjunctions, phrases and clauses in the Cantonese base structures. The least common pattern of code-switching
is insertion of Cantonese constituents into the English base structure, and switching in between English and Cantonese sentences. Examples of each pattern of code-switching are given in the following illustrations quoted from past research or produced by the writer as a Cantonese-English bilingual. The first line is the transcription of Cantonese in bold type in the Yale Romanization System (or in the LSHK system used by researchers like Lee). The second line is a word-by-word translation, with Cantonese grammatical categories abbreviated as CL (classifier), PART (particle), POSS M (possessive marker) and ASP M (aspect marker). The meaning of these terms can be found in the glossary in Appendix 1. The third line in italics is the English translation of the whole sentence.

### 1.1.4.1. Noun-mixing

The majority of English found in the recordings in Gibbons' research is in the form of single English nouns surrounded by Cantonese (Gibbons, 1987). They also comprise $52 \%$ of the 500 utterances in the corpus collected in Chan's study (1993).

Illustrations: 1. keuihdeih wah heui barbecue (Gibbons, 1987, p.57)
They say go barbecue

They say going to barbecue.
2. computer hoyi tau-gwo keyboard taihgong yat-di feedback (Chan, 1993, p.68)
computer can through keyboard provide some feedback Computers can provide some feedback through keyboards.
3. Ding5 hai6 bei2 go3 melody line nei5 dei6 (Lee, 1996, p.186)

Or give CL melodyline you
Or give you the melody line.
Illustration 3 shows that compound nouns are also found in the mixed-code, like
aerobic class, geography lesson, etc.

### 1.1.4.2. Verb-mixing

Verb-mixing is the second most common in Hong Kong bilingual's code-mixing behavior, comprising a $29.6 \%$ of Chan's study (1993).

Illustrations: 4. Ngoh deih ho yi adjust go bubble lo bo (Gibbons, 1987, p.58)

We can adjust CL bubble PART
We can adjust the bubble.
5. Keuih deih yihga check-gan (Yip et al, 2001)

They now check ASP M
They are now checking.
6. Neih a-mh-appreciate keuih a ? (my own production)

You appreciate or not appreciate her PART ?
Do you appreciate her?

Illustration 4 is a mix of the Cantonese modal verb 'ho-yi' (meaning 'can' in English) with an English base verb. The English modal verbs and auxiliary verbs are never found alone or combined with Cantonese verbs in the Cantonese-English mix. Illustration 5 is an uninflected English verb 'check' mixed with a Cantonese aspect marker which indicates the continuous tense. English verbs never appear in inflected forms in the mixed code. Illustration 6 is a rather weird but not uncommon structure of having an English verb split up to conform with the Cantonese interrogative 'verb-negative-verb' syntax.

### 1.1.4.3. $\quad$ Adjective mixing

Adjective or adverb mixing comprise $16.8 \%$ of the total number of utterances in Chan's corpus (Chan, 1993). English adjectives can appear predicatively or attributively in a Cantonese utterance:

Predicative adjective: 7. Keuih de - mh-desirable a ? (Gibbons, 1987, p.59) She desirable or not desirable PART Is she desirable?
8. Go fehn geun hou simple (Chan,1993, p.38)

That CL paper very simple
That paper is very simple.
9. Yam-jo coke houchih high high dei (my own production)

Drink ASP M coke seem high (reduplication)
Having drunk coke, Ifeel a bit high.
It can be seen that illustration 7 is an example of the Cantonese interrogative split structure similar to the verb mixing mentioned earlier, only that this time this structure is applied to an English adjective 'desirable'. Illustration 9 is a typical example of fitting an English adjective, 'high' in this case, into the Cantonese reduplication structure to mean 'a little bit'.

Attributive adjective: 10. Keuih haih yat go hou critical ge
He is a CL very critical POSS M yahn (Chan, 1993, p.39). person.

He is a very critical person.

### 1.1.4.4 Adverb-mixing

Illustrations: 11. Jan1 wai6 at least dou1 teng1 dou6 (Lee, 1996, p.160).
Because at least also hear V PART
Because at least we can hear.
12. Honestly, ngoh gokdak kueih-ge leuih-pahngyauh
Honestly, I feel his POSS M girlfriend
haih hou ngok ge
is very fierce POSS M person (Chan, 1993, p.40).

Honestly, I feel his girlfriend is a very fierce person.

Illustrations 11 is an English adverbial phrase 'at least' mixed into Cantonese syntax, whereas in illustration 12, the position of the English adverb 'honestly' for emphatic purpose is put in the beginning of the sentence in accordance with the English syntax instead of the Cantonese.

### 1.1.4.5 Preposition and conjunction Mixing

Whereas Gibbons (1987) holds the view that English conjunctions 'almost never appear
alone' in the predominantly Cantonese discourse, Chan(1993) records a $2.2 \%$ of preposition and conjunction mixing in his study.

Preposition mixing:
Illustrations 13 Yi-di chaanban haih for siyahn yuhngtouh (Chan, 93, p.42)

These products are for private use
These products are for private use.
14. After yi-go review ji-houh..... (Chan, 93, p. 42)

After this CL review after....

After this review...
It should be noted that in illustration 13, there is no direct equivalent of the preposition 'for' in Cantonese, hence the basic English syntax is kept. In illustration 14, a 'preposition - noun phrase - postposition' structure is used to express the same idea in Cantonese: 'hai yi go review ji houh' (preposition this classifier review after[postposition] )

Illustration 14 is actually a wrong structure in both Cantonese and English because of the repetition of the preposition 'after' in both Cantonese and English, yet it is not an uncommon mistake made by Hong Kong bilinguals.

## Conjunction-mixing

Illustration 15 And then Winnie nel? (Lee, 1996, p.166)
And then Winnie SENT PART
And then how about Winnie?

### 1.1.4.6 Phrase mixing:

Illustration 16: Kam4 jat6 keoi5 sang1 jat6 jiu3 gong2 faan1 goeoi3
Yesterday his birthday should say V PART CL belated happy birthday. (Lee, 1996, p.180) belated happy birthday. Yesterday was his birthday and we have to say belated happy birthday.

### 1.1.4.7 Clause mixing:

# Illustration 17: Cam4 maan3 lai4 gong2 ne1 ngo5 jau6 gok3 dak1 <br> Last night V.PART. talk SENT PART I then feel I have a wonderful evening. (Lee, 1996, p.197) <br> I have a wonderful evening <br> Talking about last night, I then feel I had a wonderful evening. 

### 1.1.4.8 Mixing of Cantonese phrases into English base structures.

All the illustrations mentioned above indicate English constituents mixed into Cantonese syntax, yet sometimes English syntax can also be the base structures or Matrix Code into which Cantonese words are embedded, especially among Hong Kong bilinguals who have high English proficiency.

Illustration 18: Well, the voice is feil soeung4 cing1 co2. (Lee, 1996,
Well, the voice is very clear.
Well, the voice is very clear.

Here a Cantonese adjective phrase is mixed into the English base/ host structure.

### 1.1.4.9 Mixing in between sentences

Like mixing Cantonese constituents into English base structure, inter-sentential code-switching is also very uncommon among bilingual speakers in HK , except those with very high English proficiency. It is, however, often found in classroom situation,
which will be further explored in this research study.

Illustration 19: We have all your favorite music. Heil mong6 nei5 ge3 We have all your favorite music. Wish you POSS M ngaan3 zau3 gwo3 dak1 hoil sam1 di. (Lee, 1996, p.204)

afternoon spent V.PART happy more.

We have all your favorite music. Wish you have a happier afternoon.

## 1.2: THE DEVELOPMENT OF LANGUAGE POLICY IN HONG KONG

In this section, the development of education language policy in the past hundred and sixty-odd years of Hong Kong history is traced back to investigate what has formed the present scenario of the language situation in the classroom.

Different writers interpret the history of language policy in the colonial era in Hong Kong in different ways. Writers like Fu (1975) and So (1992) hold the view that the dominance of the EMI schools in the secondary sector was 'largely a result of the measure of the colonial administration with the purpose of cultivating a class of bilingual brokers to mediate between itself and the governed' (So, 1992, p.71) among the local population. Sweeting (1990 a), on the other hand, put forwards that it was an interplay of extraneous factors like the influence of what was happening in Mainland China that helped shape the local education milieu. It is beyond the scope of this paper to decide whether it is the conscious manipulation of the colonial government or its inevitable response to the trend of history that has given English medium education its dominating status. What can be certain is that the sociopolitical
development of Hong Kong is the main driving force of the development of the language policy, which is described in the rest of this section. Government policies and extraneous historical happenings that are deemed contributory factors to the present scenario of the language education in Hong Kong are presented in detail.

### 1.2.1 LAISSEZ-FAIRE LANGUAGE POLICY

In the early days of the colonial era, the British Government had no education policy for Hong Kong, let alone a unifying education language policy. Therefore, while the Colonial Government gave grants to the Anglo-Chinese schools established by missionaries from England and other European countries, it also subsidized private Chinese village schools as an alternative form of education for the Chinese children ever since the 1840s (Sweeting,1990a). The first government school which provided free education to Chinese boys in Hong Kong was an Anglo-Chinese one in which the study of English was obligatory, with the intention that 'an influence may go forth from the Island, which shall be widely felt in China enlightening and benefiting many of its people' (Legge, 1861, pp.106-107, quoted in Sweeting,1990a, p.187). However, according to the HK Government Gazette, 1876, the teaching of Chinese and English should be given equal importance:

The aim is to put both languages, English and Chinese, on a footing of perfect equality, as far as that is possible, and not sacrifice the one to the other. At first, the Chinese would have been glad to throw their language overboard, but this could not be listened to. The result would have tended to denationalization and the product of a tribe of smatterers utterly useless for interpretation, or, for that matter, for anything else....Every scholar in the school, ... has his four hours a day at English and four at

## Chinese.

(Sweeting, 1990a, p.227).

This revealing quotation from the Government standpoint at that time points out two often neglected facts about the history of language policy in Hong Kong. The first is that it was never the intention of the Colonial Government to impose English on Hong Kong Chinese students at the expense of their own language, though the reason behind this could be solely self-interested and utilitarian (the need for bilingual brokers). The second is that the general Chinese public at that time already valued the learning of English more than Chinese, which was again functionally motivated given the condition that English was then the only official language of the Colony and that the knowledge of English would more easily secure a white-collar job in one of the large European companies like Jardine \& Matheson.

### 1.2.2 ENGLISH: THE LANGUAGE OF THE ELITE

In 1878 the then HK Governor Hennessy declared in an education conference held in the

Council Chamber that 'political and commercial interests rendered the study of English of primary importance in all Government schools' (Sweeting,1990a, p.210). This proclamation is self-explanatory if we take the view that the success of the colonial rule would depend on the cultivation of a westernized and English-speaking elite to serve as a bridge between the government and the governed, and it heralded the language policy of the only university in Hong Kong until 1963. In 1912, the University of Hong Kong modeled on a British provincial university was opened. The editorial in the China Mail, Friday, December 15,1905 may interestingly epitomize
the purpose of such an institution:
...if the British Empire intends to hold its own and spread its influence equally with its rival of the North (Japan) something far more than elementary education is needed.....But a university established in Hong Kong would rank as an imperial asset and public money spent on it would be to the full as well spent as far as the prosperity of the Empire is concerned.
(Sweeting, 1990a, p.279)

The dominating status of English in HK was firmly established once it had become the only language for access to higher education and hence to a successful career. As a result, even after Burney, one of the His Majesty Inspectors of education, criticized the colonial government's neglect of primary education in the vernacular and the over-academic and impractical nature of English secondary education in the Burney Report in 1930, nothing much was done on the initiative of the Government to boost the status of Chinese-medium education (Yu, 1987).

### 1.2.3 THE GROWTH OF CHINESE-MEDIUM EDUCATION

The founding of the first Government Vernacular Middle School can be dated back to 1926, 64 years later than the founding of the first Government Anglo-Chinese Middle School, the Central School. However, it is interesting to note that the number of Chinese-medium schools was 89 while that of the English-medium schools was only 74 in 1958 (Hong Kong Annual Review, 1988, quoted in So, 1992, p.70). The cause of this upsurge in the number Chinese-medium schools in this period, according to writers like So, Sweeting and Yu, was the intervention of the Chinese Nationalist

Government which had successfully unified China for two decades since 1928 and reformed its education system based on the American model with the use of Guoyu, the national language (or Mandarin, the official language, or the now Putonghua, the common language), in all schools in the Country. Such a new system was to be exported to overseas Chinese abroad, including those in Hong Kong. Accordingly, the Hong Kong Government also adopted measures that could provide further education and career future for these Chinese school graduates. In 1952, local certification for Chinese middle school graduates was made available (So, 1992). In 1963, the Chinese University of Hong Kong was founded upon the initiative of a group of local patriotic scholars to provide tertiary education to Chinese middle school graduates, the medium of instruction of which was specified to be mainly Chinese. In 1974, the Chinese language was accorded official status after years of protests and lobbying from pressure groups and student bodies. Since then Chinese was used in every government document, in Court and government meetings alongside with English.

### 1.2.4 THE DOMINATION OF ENGLISH-MEDIUM SCHOOLS OVER

## CHINESE-MEDIUM SCHOOLS

So (1992) has succinctly pointed out that while the Hong Kong Government had adopted a more and more open policy to the promotion of Chinese-medium education, the public had increasingly grown antagonistic to it. The explanation for this phenomenon was multi-causal, such as the lack of financial and manpower support to Chinese-medium schools from the Nationalist Government after the Communist takeover in 1949, and the unpopularity of the Communist Regime in the Mainland with its endless anti- intelligentsia political upheavals. However, the main reason, in
my view, was economic and pragmatic. As mentioned earlier, during the years of political turmoil in Communist China, with the influx of capital and manpower provided by the refugees from the Mainland, Hong Kong grew into an industrial city in the 50 s and the 60 s , and has, since the opening up of China, grown into an important financial and service metropolis serving as a bridge between the Mainland and the west in the 70s and the 80s. The need for English as an international language in the financial and technological arena has been more and more urgently felt. A good command of English is almost equivalent to a guarantee to a good career and upward social mobility. No wonder the number of subsidized and private English-medium schools grew from 74 in 1958 to 343 in 1988, whereas that of the Chinese-medium schools dwindled from 89 to a mere 57 in the same period (Hong Kong Annual Review, 1988, quoted in So,1992, p.70). Hence when the Government took the unprecedented step of promoting mother-tongue teaching in the colony in the 80 s , it was a step taken against the public opinion of its people.

### 1.3 REFORMS IN EDUCATION LANGUAGE POLICY: THE GOVERNMENT'S EFFORTS TO TURN THE TIDE

Whether politically-motivated or not, the Hong Kong Government did try to introduce a series of education reforms in language policy before and after the handover in 1997. This section is an account of these reforms and the criticism they received afterwards.

### 1.3.1 THE EDUCATION LANGUAGE POLICY REFORMS

The last fifteen years before Hong Kong was handed over to Mainland China in 1997 saw a number of policy changes initiated by the Government to encourage Chinese medium education in secondary schools. In 1982, just one year before the Sino-British Joint Declaration was signed to confirm the handover, a visiting panel from England headed by Llewellyn to review the education system in Hong Kong clearly stated that 'the mother tongue is, all other things being equal, the best medium of teaching and learning', although 'Hong Kong cannot afford to reduce the emphasis on English in its schools' (Llewellyn, 1982, p.28). The removal of the language specification from the School Certificate for all secondary school leavers in 1986 and the arrangements made for students to take the A Level Examination in Chinese in 1994 were attempts to abolish the status differential between English and Chinese education. In 1990, the Education Commission proposed a framework of streaming primary school leavers into English-medium schools, Chinese-medium schools (CMI schools) and Two-medium schools by assessing their internal school examination results in the last three terms in primary 5 and 6, consisting of an English group and a Chinese group (i.e. all the non-cultural subjects taught in Chinese), scaled down by an Academic Aptitude Test which measured verbal and numerical reasoning. It also recommended a policy of positive discrimination in favor of the schools which switch to Chinese-medium, for instance, additional teachers of English, bridging programs at various levels (Education Commission No.4, 1990).

In spite of the incentives provided, few English-medium schools changed to Chinese-medium as few parents would like to send their children there owing to the social factors mentioned in previous sections. The one school which initiated to
change to mother tongue teaching in the end had to switch back to English-medium teaching due to pressures from the parents. In September 1997, three months after the handover, the Education Department took a more forceful stand on enforcing mother tongue teaching by issuing to all secondary schools mandatory guidelines on the medium of instruction, the gist of which are as follows:

Except 100 schools which have proved themselves to be successful in English- medium teaching, all secondary schools should adopt Chinese as a teaching medium starting from 1998/99 secondary 1 intake and progressing each year to a higher level.

Some schools implementing the new policy by 2000/2001 (i.e. Secondary 1-3) would be allowed to switch to English-medium for certain subjects in some classes at secondary 4-5.

For secondary 6 and 7, schools would be allowed to decide which teaching medium to use.

Additional resources would be provided to promote mother tongue teaching and enhance English language teaching.
(Education Department, 1997)

These were the first attempts on the part of the government to go beyond laissez-faire or positive discrimination policy to enforcing mother tongue teaching, and to set the language goals of bi-literacy (written Chinese and English) and trilingualism (oral Cantonese, English and Mandarin) in Hong Kong. However, these reforms met with vehement opposition from all sectors of society, which will be discussed in the next
section.

### 1.3.2.ARGUMENTS AGAINST THE EDUCATION LANGUAGE POLICY REFORMS

When the Education Commission Report No. 4 and the later revised policy of mandatory guidelines for secondary schools were issued, they met with vehement criticism from parents and educationists especially language specialists. The oppositions were mainly focused on three aspects: the streaming policy, the bridging policy and the 'no-mixed-code' policy.

The Linguistic Society of Hong Kong queried the validity of the streaming criteria issued in 1990, which included primary school leavers' internal school examination results in the last three terms in primary 5 and 6, consisting of an English group and a Chinese group (i.e. all the non-cultural subjects taught in Chinese), scaled down by an Academic Aptitude Test which measured verbal and numerical reasoning. That the Academic Aptitude Test was without an English language component would present a lopsided view of the students' language abilities in English. Hence the division of students into three ability-groups is 'arbitrary' (Linguistic Society,1992b,p.174) and 'judgmental' (Linguistic Society, 1992 b, p.176). Besides, the streaming policy was described by So (1992, p.86) as the 'linguistic Berlin Wall of the 1990s', which had detrimental labeling and divisive effects on the students. It was criticized as 'having the self-defeating consequence of lowering the status of Chinese-medium education' (The Linguistic Society of Hong Kong, 1992b, p.172) because the top $30 \%$ of students in primary 5 and 6 would be streamed to English-medium schools, which strengthened the notion that English-medium education is superior to

Chinese-medium education. Even after the mandatory guidelines were issued in September 1997 which required all secondary schools to adopt mother-tongue teaching with the exception of one hundred schools that could meet the criteria of instructing in English, the Government was criticized to have reinforced the notion of English as the privileged tongue because most of the prestigious schools in Hong Kong were on the exemption list (Wong, 2000). The critics' charge was also supported by the fact that twenty schools made their appeal to be included on the exemption list, and in the end fourteen were successful, making the number of EMI schools a hundred and fourteen instead of a hundred.

As regards the bridging programs proposed by the Government for students who had to switch from Chinese to English medium education in form one, form four or the tertiary level, depending on the type of schools they were attending, the Linguistic Society (1992) queried their effectiveness in preparing students for the switch, because practically no research has been done on these programs. Also, to have to change the medium of instruction twice or thrice in the secondary school curriculum would present tremendous pressures to students and teachers alike. Yet this problem was not dealt with or even given due attention by the Government.

Lastly, heated debates arose from the claim made by the Education Commission Report No. 4 that code-switching in the classroom hinders the acquisition of language proficiencies by students in both Chinese and English. Writers like So(1992), Li(1996) and the Linguistic Society of Hong Kong (1992 a \& b) refuted the validity of such a claim, saying that it is neither research-based nor practical to require teachers and students to keep the two languages apart and that code-switching is a 'building block rather than a stumbling block' (So,1992, p.88) to bilingualism. The theme of
code-switching is the focus of this research study and will be discussed in the following chapters.

To sum up, critics of the language policy reforms share the common views that the education language policy reforms consolidate the status of English medium education without truly helping students to acquire bilingualism to serve the needs of the Hong Kong society.

### 1.3.3 ARGUMENTS FOR THE EDUCATION LANGUAGE POLICY REFORMS

Having looked at the arguments against the education language policy reforms, we now examine the arguments for them as well.

A number of writers, though few in number, did render support for retaining the English medium schools as they are. Cheung (1990, p.78) held the view that the streaming system could 'take care of the brighter students who can and should be allowed to continue in English (medium education) if they so wish'. Lord (1987, p.13) favored a total immersion system for 'certain categories of students'. So (1987, p.267) asserted that there was no reason 'to force those Anglo-Chinese secondary schools which have demonstrated their ability to provide their students with a sound English medium education to switch to Chinese medium'. Therefore, if a proportion of English medium schools are to remain in the scene, some sort of streaming will be inevitable. These writers believed that the SAR Government was right in not just measuring the students' English proficiency level in the streaming process because to do so would make primary education very lopsided to the training of English alone. The inclusion of school internal examination results of Chinese-taught subjects in the
streaming assessment actually falls in line with the ideas of Cummins $(1976 ; 1979 ; 1986)$ that students must have acquired an adequate level of proficiency in their first language in order to learn in a second language (to be further discussed in the chapter on literature review). The much criticized Academic Aptitude Test was abolished with effect from the 2001-2001 school year.

In April 2000, the Government took another move to abolish the release of the MIGA (Medium of Instruction Grouping Assessment results worked out by the criteria mentioned in the previous section) of individual students. Instead, a school-level summary was given to primary and secondary schools as an indication of the language profile of their students as a whole (Education Department, 2000). This move was indeed a good attempt to remove the labeling effect of the streaming policy.

Cheung (1990) also argued that this labeling effect would gradually disappear if opportunities in tertiary education are available for students from the CMI schools. As a matter of fact, the removal of the language differentiation on the School Certificates in 1986 and the arrangements made for students to take the AL Examinations in Chinese in 1994 have already demonstrated the availability of such opportunities.

Another strength of the reformed system is that flexibility and freedom is given to individual secondary schools to decide on the medium of education for different subjects beyond Form three. This can allow individual schools to try out different models of bilingual education which befit their particular school setting and the language proficiency level of their student population. Such flexibility and variety is actually in line with Lord's ideas that 'there should not be a single scheme in bilingual education for all schools' and that 'depending on the goal and organization of the
bilingual education programs, a wide variety of individuals with bilingual competence could be trained' (Lord, 1987, p.20).

### 1.3.4. EVALUATION OF THE EDUCATION LANGUAGE POLICY REOFRMS

Although some have conjectured that the education language reforms initiated by the Hong Kong Government in the wake of the handover was politically motivated, a mere gesture to please the new sovereign power or a means to make reintegration with the motherland easier, my interpretation is that these are genuine attempts to improve the language proficiency of its people as a competitive edge in the face of the changing economic structure from a manufacturing to a service economy and also of the rivalries from the Asian-Pacific region like big cities in Mainland China, Singapore, Japan and Korea. With its sound financial and banking infrastructure, Hong Kong is still very much a link between western capital and the huge market of 1.2 billion people in the Mainland. It is the largest source of external direct investment in the Mainland, which amounted to US\$151 billion in 1999 (HK Annual Report). The United States was the largest market for Hong Kong's domestic exports in 1999, followed by Mainland China and the United Kingdom. It also has a strong presence of international financial institutions; foreign-owned banks alone numbered 141 in 1999. If English has ceased to be the language of the sovereign power to Hong Kong, it has increasingly become the language for international trade, digital information and other technological know-how, given the fact that English is the 'lingua franca' of the world. Therefore, on the one hand, Hong Kong requires English speaking personnel in finance, trade, technology and tourism; on the other hand, it needs Mandarin-speaking personnel in cultural, academic, economic and political transactions with the Mainland. No wonder the Government has set the goal of its language policies in

1997 to be biliteracy and trilingualism instead of monolingualism for its people.

As Appel and Muysken (1987) have rightly pointed out, bilingual education is a luxury. In the American experience, even as funds were allocated to bilingual programs in principle for all children speaking a minority language in schools in the United States in the 1960s, this policy was discarded in the 80s to give way to the more economically and politically viable guideline of 'one country, one flag, one language' (Appel \& Muysken, 1987, p.60). Hong Kong Government could have adopted a similar language policy of monolingualism and imposed mother-tongue teaching on all schools and universities in Hong Kong for nationalistic, educational as well as economic reasons. However, this would have completely neglected the socioeconomic needs for English in the Special Administrative Region and also risked bringing an undesirable amount of changes to the region. On the other hand, to implement truly bilingual education of total early immersion starting from kindergarten would require resources of a large number of native English teachers or competent bilingual teachers that Hong Kong at the moment is not able to provide. Hence the Government has adopted Cummins' CALP (Cognitive- Academic Language Proficiency) model which advocates English medium education only after the child's first and second languages are good enough to handle the complexity of academic subjects. To avoid high-handed measures, it at first just recommended the policy of positive discrimination in 1990 hoping that some schools would change to Chinese medium teaching on their own accord. When just one school in the entire colony was willing to change and even then reverted to mother-tongue teaching in the face of parental opposition, it opted for issuing mandatory guidelines to enforce the streaming policy. It was doubtful why the Government allowed the existence of one hundred and fourteen schools to be English medium schools instead of enforcing
mother-tongue teaching in all secondary schools. I take it as another compromise between retaining the status enjoyed by the few elite English medium schools, together with their hitherto satisfactory production of English-speaking elite, and the attempt to push mother-tongue teaching. Such a compromise was again under vehement attack as being discriminatory and socially divisive as mentioned above

### 1.4 CONCLUSION TO CHAPTER ONE

The education language policy before the Government's reform attempts was a classic example of policy which 'jeopardize(d) the education progress of the majority in order to guarantee a sufficient number of competent English speakers' (Llewellyn, 1996, p.30). In spite of the vehement criticism from all fronts, the Government is at least doing something to resolve such a dilemma by guaranteeing a sufficient number of English speakers to meet the societal needs while trying to provide a more friendly and effective language environment for the majority of students. It is too early to judge whether the initial attempts are a success or failure. I believe that history itself will give the fairest verdict in the end. At this stage, more context-specific research should be carried out to investigate into the nature of bilingual education. An important research area would be to find out whether code-switching is a stepping stone or stumbling block to acquiring English and learning the subject, and the differences, if any, in the code-switching patterns used by teachers with student populations of different' English proficiency levels and their implications, which are the objectives of this research study.

Chapter Two of this thesis will provide a selected literature review on bilingual education and Chapter Three, on classroom code-switching, which can perhaps shed
light on some of the questions raised.

## CHAPTER TWO:

## A SELECTED LITERATURE REVIEW ON BILINGUAL EDUCATION

The theme of this research study, the issue of classroom code-switching, is best seen against the broader issue of bilingual education, as it is in the bilingual classroom that the alternate use of two languages is most commonly found. To build on the knowledge accumulated through past research, Chapter Two and Three will present a selected literature review on the rich repertoire of studies, discussions and debates on the issues of bilingual education and classroom code-switching. Chapter Two will be a discussion on bilingual education and Chapter Three, classroom code-switching.

### 2.1 THE SCOPE OF BILINGUAL EDUCATION

Bilingual education is not only about language and education, but is related to psychology, sociology, politics, and economics. In the early period of studies carried out on bilingual education, Mackey (1970) has rightly pointed out that when it comes to the individual's learning process, it involves the domain of psychology; when it is the study on the impact of cultures and social identities, it is the domain of sociology. I would like to add that when it is about the distribution of power in relation to language and education, it is the domain of politics; when it focuses on the distribution of resources and cost-effectiveness, it is the domain of economics. As the concern of this research study is classroom code-switching against the background of language education in Hong Kong, the selected literature review in this chapter on bilingual education will limit itself to the discussions on the definitions of bilingual education, types of bilingual education, the bilingual education debate, the place of the mother tongue in bilingual education and an appraisal of bilingual education in

Hong Kong before 1997. It is hoped that these discussions will provide a deeper understanding of the complex issue of bilingual education, and a solid basis on which to research into effective ways of carrying out bilingual education in Hong Kong.

### 2.2 DEFINITION OF BILINGUAL EDUCATION

Traditionally bilingualism referred to fluency in two languages (Brisk, 1998). Bloomfield, for instance, defined bilingualism as the 'native-like control of two languages' (Bloomfield, 1933, p.56). At times, bilingualism could even mean not only abilities in languages, but also abilities beyond languages. For instance, Skutnabb-Kangas puts forward the definition of bilingualism as the ability to 'identify with both language groups (and cultures) or parts of them', apart from the native-like mastery of both languages (Skutnabb-Kangas, 1984, quoted in Skutnabb-Kangas, 1988, p.22). This narrow definition of bilingualism precludes a majority of the bilingual population who do not have full command of a second language, and has therefore been replaced by broader ones. Weinreich, for example, uses a vague definition of bilingualism as 'the alternative use of two languages' (Weinreich, 1968). With this definition, bilingualism can refer to some sort of knowledge of a second language even if this second language competence is limited. Some linguists may define bilingualism as a spectrum of language proficiencies. Cummins (1986) and Skutnabb-Kangas (1988) summarize succinctly the spectrum such that at the one end is the mastery of some knowledge of a second language; at the other end, its native-like competence.

Bilingual education has also undergone different interpretations as much as bilingualism across different socio-historical contexts. In the United States in the

1960s, for example, state-funded 'bilingual education projects' included not only ESL (English as a Second Language) programs, but also general cultural awareness programs, although it had been argued that unless the students' home language was used as a medium of teaching in the curriculum, to call ESL program bilingual caused confusion (Cordasco,1976). Mackey (1976) goes for a strict definition of bilingual education, which, apart from aiming at the acquisition of native-like competence of the second language and the maintenance of the student's mother-tongue, also includes the study of the history and culture associated with the student's mother tongue. Such a bilingual and bicultural education model is more widely practiced in Europe than in the United States due to the multi-lingual and multi-cultural composition of Europe itself which has to make room for multiculturalism and multilingualism (Leman, 1993).

For the purpose of this research study, it is more helpful to use a generic definition of bilingual education, i.e. the use of two different languages in the classroom education process (Cordasco, 1976; Jacobson,1990; Brisk,1998). It entails different approaches, models and programs of bilingual education, some of which will be outlined in the next section.

### 2.3. TYPES OF BILINGUAL EDUCATION

In view of the wide scope of bilingual education, there are different perspectives of looking at and classifying bilingual education. To avoid sidetracking from the theme of this thesis, only the sociological and pedagogical classifications are delineated
below.

### 2.3.1 THE SOCIOLOGICALCLASSIFICATION OF BILINGUAL EDUCATION

Gaarder (1975) looks at bilingual education as a sociological issue and concludes that the most fundamental distinction in bilingualism is between voluntary bilingualism and obligatory bilingualism. The former is developed out of the individual desire or parental choice whereas the latter is a result of forced language learning upon the necessity to survive in a foreign country, where one's mother tongue is of little socio-economic value or of less value than the language spoken by the majority. Brisk (1998) uses the terms quality bilingual education versus compensatory bilingual education to describe similar concepts. Quality bilingual education is for the enrichment and advances of education for the elite whereas compensatory bilingual education is only a way of preparing the minority students to adapt to the use of English as the medium of teaching and its outcome is judged solely by its effectiveness to teach and learn English. Lambert (1977) describes similar socio-cultural phenomenon using the terms 'additive' and 'subtractive' bilingualism. When the learner's mother tongue is a prestigious or dominant language, in a community where studies have reported positive effects in association with bilingualism, then the learning of a second language will normally not replace or impair his mother tongue. In contrast, for many ethnic minority groups in western countries, the learning of the second language (usually the majority and more prestigious language) will gradually replace his mother tongue, or negatively affect his competence in it. In the former incidence, the learner is having a second language added to his repertoire of knowledge and skills, whereas in the latter, he is having his mother tongue subtracted along the process of second language learning.

Cummins (1986) introduces the terms 'immersion' and 'submersion' to describe the different situations a second language learner has to encounter in a home-school language switch. Immersion refers to a situation where learners from the same linguistic and cultural background are put together in a classroom setting in which a second language is used as a medium of instruction. Submersion, on the other hand, refers to the situation where some learners who have little or no prior knowledge of a second language have to make a home-school language switch in the same classroom as the majority who have already been functioning in that school language. Again, very often the immersion program leads to an additive form of bilingualism while the submersion program to a subtractive form.

Skutnabb-Kangas (1988) classifies bilingual education from a socio-lingual perspective in finer categories, that is, 'segregation' for a majority and 'segregation' for a minority, 'mother tongue maintenance' for a majority and 'mother tongue maintenance' for a minority, 'submersion' for a majority and 'submersion' for a minority, and lastly, 'immersion'. The segregation model for a majority refers to education given through an L2 to perpetuate apartheid policy, as in Namibia. Segregation model for a minority refers to the education of migrant Turks in Bavaria, Germany, through the medium of their mother tongue Turkish to prepare them for forced repatriation to Turkey. 'Mother tongue maintenance' for the majority refers to the mother tongue-medium education given to different language groups in a multilingual community such as the Soviet republic of Uzbekistan where seven language groups are treated with equality. 'Mother tongue maintenance' for the minority is education given to one minority group in a foreign country through the medium of their mother tongue, such as Finnish-medium classes for the Finnish
migrants in Sweden. 'Submersion' for a majority is education through the medium of a former colonial language in many African countries, like Zambia, with the linguistic goal achieved being dominance in English for the elite, and limited English proficiency for the majority. 'Submersion' for the minorities refers to forced second language learning by the minorities in western countries in classroom settings where the other classmates are already functioning in the medium of the L2. Lastly immersion refers to the program in which the majority students are educated through the medium of an L2 while their prestigious mother tongue is still in operation, as in the immersion program in Canada. Among these different models, Skutnabb-Kangas concludes that only the 'mother tongue maintenance' and the 'immersion' program can benefit students linguistically and academically, because unlike the other programs, their linguistic goal is bilingualism, not dominance of the majority language, and the societal goal, equality for different races, not subjugation of the minorities or the powerless majority. Even though Skutnabb-Kangas' models are very context-specific, some of them can nevertheless be generalized to other places. For example, submersion for a majority was actually practiced in Hong Kong before the education reforms, where the curriculum was taught through a former colonial language, with the end result being dominance in English for the elite, and limited English proficiency for the majority.

So far, we have examined several models of bilingual education seen from the sociological perspective and the writers who propose these models all suggest that what society or rather, the government intends to be the goal of the bilingual education program actually determines what the outcome of the programs will be. Helpful as these models may be in the understanding and analysis of the sociological dimension of bilingual education, the study of the pedagogical effectiveness of
bilingual education would necessitate more detailed classification and descriptions which take into consideration the methodology and other practical details of the models. The following section will be a presentation of some models of bilingual methods seen from a pedagogical perspective.

### 2.3.2. THE PEDAGOGICAL CLASSIFICATION OF BILINGUAL EDUCATION

Bilingual education programs can be classified according to pedagogical concerns like the target student populations, the targeted level of language proficiencies, the distribution of L2-taught subjects (Brisk, 1998), and also the distributional pattern of languages for content instruction in bilingual classrooms (Jacobson, 1990).

Brisk (1998) classifies bilingual education models into the quality bilingual education model and the compensatory bilingual education model. The quality bilingual education model attempts to develop full education effects in academic and bilingual competence. In the United States, most of these programs are implemented in private schools for the elites, or the children of expatriates in the international communities. It consists of the dual language model, the Canadian immersion model, the two-way model, the two-way immersion model, and the maintenance bilingual education model. The compensatory bilingual education model aims at integrating language minority students into the mainstream of English-only education. In other words, to
change these bilinguals to monolinguals of English, because their mother-tongue, the minority language, is thought to be getting in the way of learning English and learning in English. This model includes the transitional bilingual education model, the submersion model with L1 support, the bilingual immersion model and the integrated transitional bilingual education model. Because of their relevance to teaching, each of these models will be presented below in brief.

The dual language (or mainstream bilingual education) model targets at the language majority students or children of the international population, like expatriates working in a foreign country. The curriculum is delivered in two languages, conventionally half day in one language and half in the other. Sometimes all subjects are taught in one language, and some in another, with bilingualism as its goal. The Canadian immersion model, which will be further discussed in the later sessions, also targets at bilingualism for the majority student population. In the early immersion model, all subjects are taught in the L2, that is, French, for two years, then the L1, that is, English, will be used increasingly until the two languages are evenly distributed for the remainder of schooling. The two-way bilingual model is similar to the dual language model except that it is meant for both majority and minority students. Both languages are distributed equally over the grades for both the language majority and
language minority students in the same classroom, so that they can learn from each other's language and culture. The two-way immersion model is a combination of the two way bilingual model and the immersion model. Both the majority and minority students are put together in the same classroom where the minority's L 1 will be taught first for the first two years, which means immersion in an L2 for the majority students. Then the majority language, usually English, will be used increasingly over the grades until it reaches $50 \%$. The maintenance bilingual education model serves the minority students exclusively. Their L1 will be taught first, maintained and developed while they are learning an L 2 .

The abovementioned are the quality bilingual education models. What follows is a summary of the compensatory bilingual education models. In the transitional bilingual education model, minority students' L1 literacy is taught first, then English. The native language is used while students are receiving ESL training. Once their English proficiency has been improved, they will be transferred to the mainstream of English-only education. Submersion with English support is a modified version of the transitional bilingual education model in that the few minority students are put in the mainstream English-medium classroom and pulled out every day for English tutoring or ESL until they achieve full fluency in English. The bilingual immersion model is
also a transitional model that prepares students for English-only classes. Minority students are put together in one class where simplified English is used to teach content subjects and academic concepts are developed in the L1 before transferring to mainstream classes. The integrated transitional bilingual education model attempts to integrate bilingual classes with mainstream classes. Language minority students are put together with majority students and their L1 is used alongside the majority language, English.

While Brisk gives a very comprehensive and lucid account of different bilingual education models actually implemented in schools in English-speaking countries, Jacobson and Faltis (1990) have devised a model of classifying bilingual education based on the distributional patterns of the actual language use in the classroom. The topmost broad categories in this model are the separating and the concurrent approaches. The former approach is the strict separation of the two languages, English and the students' native language, lest cross-contamination or language transference will take place. This approach is often adopted by education planners, including the Education and Manpower Bureau in Hong Kong, who stipulates the English-only policy in EMI schools in Hong Kong as mentioned in Chapter One of this thesis. The second approach refutes this argument in favor of a concurrent use of the Ll and the

L2 in the classroom.

The separation model is further sub-divided according to the criteria of topic, person, time and space. The separation by topic model refers to the assignment of some content subjects to one language for instruction and the others to another language, either on a random basis or careful deliberation of which language being more suitable for which subjects. The separation of the two languages by person approach would normally assign two teachers to the same classroom in team-teaching, with one teacher constantly speaking the L2 and the aid speaking the students' L1. The separation by time approach would assign a half-day, or an alternate day, or any time slot, to the use of one language, and the rest of the time for another language. The separation of languages by space would assign different classrooms for different languages for the medium of communication.

The concurrent language model is sub-categorized into the flip-flopping approach, the concurrent translation approach, the preview-review approach and the New Concurrent Approach. The flip-flopping approach refers to the random choice of language use in the classroom disregarding any linguistic or pedagogical concerns. The teacher is altogether free in switching languages within sentences, in between
sentences or in any manner. This random language behavior is often observed in informal conversation of bilinguals, but is highly questionable as to the effect it has on the students' language proficiency (this issue will be taken up again in Chapter Four and Five). The concurrent translation approach means the teacher would say everything twice in two languages. This translation-like approach is often criticized for its causing the student to switch off when the second language is used, because he can get everything repeated to him in his own mother tongue. The preview-review approach means the use of the student's mother tongue to preview or review a teaching unit whereas the second language is used for teaching the topic in depth. This approach may risk sacrificing the content teaching in the process of language learning, because the student may be forced to understand the major portion of the lesson taught in the second language with a watered-down version of the content he could grasp in his mother tongue. Lastly, the New Concurrent Approach is a highly structured approach which allows teachers to switch to another language in between sentences and between thought groups, basing on a system of cue groups of 1 . classroom strategies: comprising concept reinforcement, review, capturing of attention, praise/reprimand; 2. curriculum: comprising language appropriateness, topic and text; 3. language development: comprising variable language dominance, lexical enrichment and translatability; 4. interpersonal relationship: comprising intimacy/formality,
courtesy, free choice, fatigue, self-awareness and rapport (Jacobson,1981). This approach has the advantage of structuring the distribution of the two languages in the classroom in a way that is not predictable to the students as in the concurrent translation approach on the one hand, and avoids random switching on the other hand.

At the same time, it maintains a more or less balanced distribution of the two languages based on linguistic and pedagogical grounds (Milk,1986). However, the discreetness and exhaustiveness of the cue system is a questionable issue, for instance, 'praise/reprimand' under the classroom strategy category may also be put under the interpersonal category; the 'language appropriateness' under the curriculum category can be classified under the 'language development' category. Besides, the actual implementation will have to depend on the way teachers are trained in such an approach.

Jacobson's language-distribution model drives home the very central issue of code-switching in bilingual education, which is the main focus of investigation in this thesis. It will be discussed further in the next chapter. At this stage, I would like to deal with a more immediate topic, that is, whether bilingual education can yield positive effects on second language learning and cognitive performance, which has been much debated over the last two decades. The following section will be a
discussion of the standpoints for and against bilingual education put forward by past research on the issue.

### 2.4 THE ONGOING DEBATES ON BILINGUAL EDUCATION

Brisk (1998) has rightly pointed out that the research on bilingual education has always been bound up with socio-economic and political concerns. A strong evidence she uses is that in the United States, after the establishment of English as the national language and the stipulation of the use of English as the medium of instruction in public schools towards the end of the $19^{\text {th }}$ century, bilingualism was then under vehement attack. Popular research in the early $20^{\text {th }}$ century contended that bilingualism caused mental retardation and failures in schools. The Unesco meeting of specialists on the use of vernacular language in education in 1951 declared that 'it is axiomatic that the best medium for teaching a child is his mother tongue' (Unesco 1953, quoted in Appel \& Muysken, 1987, p.60).

The research on bilingual education conducted in the 1960s and the 70s outside of the United States also tended to show that bilingual education had an adverse effect on the child's cognitive and language development. Skutnabb-Kangas and Toukomaa (1976) reported that most children of Finnish migrant workers in Sweden were characterized by 'semilingualism', which refers to the linguistic deficiencies of individuals who have had contact with two languages since childhood without adequate training or stimulation in either. Macnamara's study on English children who were taught in the medium of Irish in primary schools also showed that these children
lagged behind Irish children taught in their mother-tongue in the subject of problem arithmetic expressed in sentences( Macnamara,1966). A study conducted in Singapore reported that children in grade three, four and five who were attending bilingual schools performed at a significantly lower level on the fluency and flexibility scales of the Torrance Tests of Creative Thinking than the unilingual control group (Torrance et.al,1970). Similar findings in favor of unilingual education in comparison to bilingual education were suggested by the study of Amuesha-speaking children in Spanish classes in Spain (Larson et al, 1981). In a more recent study, Willig (1985) found that students in bilingual programs who were taught in the first language performed better than students taught in the L2 in submersion programs in the U.S. on language and non-language achievement tests in both English (L2) and the L1, and had better attitudes toward self and school.

Bilingual education could be said to be reinstated when research studies like the abovementioned were challenged on factors like socioeconomic status of the bilingual learners, the manner in which bilingual education was carried out and the proficiency level of the bilingual learners' native language and the second language. It was found that most of these subjects were from a lower socioeconomic minority background whose native language was not of much socioeconomic value in the wider community, as in the Hispanic or Asian communities in the United States in the early $20^{\text {th }}$ century. And when they were submerged in a class where a second language was used as the medium of instruction, they were left to either 'sink or swim' and pick up a second language at the expense of the first and of their intellectual development, the phenomenon of which was given the term 'subtractive bilingualism' as defined in previous section. Negative effects were mostly reported in the areas of verbal and scholastic achievements, which suggested that the bilingual subjects in these studies
were not able to overcome the difficulties in coping with two languages.

The challenges to the methodology of research against bilingual education were aligned with studies that reported a positive relationship between cognitive development and bilingual education. A landmark study of the kind was carried out by Peal and Lambert (1962) on French-English bilinguals in Montreal. The subjects in this study were ten-year-old bilinguals who had attained a similar level of proficiency in both languages, that is, balanced bilinguals. What was startling about the results was that not only did these subjects show a higher level of non-verbal intelligence than the unilingual control group, but also a higher level of verbal intelligence, which was a complete reverse of the previous studies. Lambert's study was replicated in other countries and yielded similar findings. In Western Canada, a group of balanced bilinguals was matched with a control group of unilinguals on economic status, sex and age and was found to perform better in both verbal and non-verbal abilities, and also verbal originality (Cummins, 1974; 1976). In Switzerland, both early and late balanced bilinguals were found to have a higher level of verbal and non-verbal intelligence, and also cognitive flexibility than the unilingual control group (Cummins, 1976). As all these research findings were in favor of balanced bilinguals in comparison to unilinguals, Cummins compared the cognitive characteristics of balanced and non-balanced grade six children from English-speaking children attending the French-English bilingual program in Canada. The results showed that the balanced group performed significantly better in verbal divergence than the non-balanced group. And when the divergent thinking performance of these two groups were compared with that of a unilingual group, unilingual group scored at a similar level to the balanced but substantially higher than the non-balanced group in verbal fluency and flexibility scales. On the verbal originality measure the unilingual
group scored at a similar level to the non-balanced group but substantially lower than the balanced group (Cummins, 1976).

However, studies which favor a positive relationship between bilingual education and cognitive and language development are not without their problems. The first problem lies with the samples. All the subjects in these studies are drawn from educated middle class families. Even if their socioeconomic status is matched in the control group, there are difficulties in holding other home factors constant. Hence the superiority of the bilingual group in language development may be due to the parents' favorable attitude towards bilingualism and not the bilingual program itself (Genesee, 1987; Romaine, 1995). The second problem lies with the interpretation of the correlation between balanced bilinguals and intelligence. In no research has it been proved that this correlation is a causal one and which direction the causation should go. Does bilingualism cause the subjects to be more intelligent, or that only intelligent students can do equally well in the mother tongue and the second language? If the causal relationship cannot be established, the effect of bilingualism on intelligence is still an unresolved issue (Romaine,1995; Edwards,2004). Nevertheless, all the studies that favor bilingual education have to do with balanced bilinguals. This drives home the place of the mother-tongue in bilingual education, which will be discussed in the next section.

### 2.5 THE PLACE OF THE MOTHER-TONGUE IN BILINGUAL EDUCATION

As regards the relationship between the proficiency levels of the L1 and the L2 as an intervening factor in bilingual education, Skutnabb-Kangas and Tukomaa's study interestingly revealed that Finnish children who migrated to Sweden at seven to eight
years of age or those who moved before starting school were most likely to achieve low levels of literacy skills in both languages, whereas children who migrated at the age of ten could maintain a level of Finnish close to Finnish students in Finland and achieve Swedish language skills comparable to those of Swedes (Skutnabb-Kangas et al,1976). Cummins built upon their assumption that the child's first language has functional significance in the learning of the second language and his cognitive development to put forward his principle of 'linguistic interdependence' or the 'common underlying proficiency' (CUP) model, in which 'the literacy-related aspects of a bilingual's proficiency in the L1 and the L2 are seen as common or interdependent across languages' (Cummins, 1986, p.82). In this model, Cummins identifies two kinds of language proficiency, the 'Basic Interpersonal Communicative Skills' (BICS) and the 'Cognitive /Academic Language Proficiency' (CALP). While the former is required in context-rich and less cognitively demanding tasks, the latter is required in context-reduced and cognitively demanding tasks. The development of the CALP in the second language actually depends on the successful development of the CALP in the first language, whereas the development of the BICS in the second language can develop independently of the first language. Unhindered learning in a second language can take place only if both the L1 and the L2 are sufficiently established. In Cummins' words, bilinguals whose competence in both languages extends beyond the higher 'threshold level' can benefit cognitively from their bilingualism. But when they are weak in both languages, or below the lower 'threshold level', their cognitive development will be affected negatively when learning in a second language (Cummins, 1979). With this assumption, the view that the earlier and the more exposure to the L2 the better the result is refuted. Instead, a child needs to have a sound foundation in his native tongue or the Ll before he can transfer the skills involved in learning a language to the L2 acquisition. In contrast, if
he is forced to use the weaker language (the L2) in thinking and communicating before he has an adequate command of the L 1 , not only will his L 1 proficiency be affected, but that the development of his 'think tank', his cognitive activities, may be held up as well.

Cummins' understanding of language proficiency was supported by Snow, who found that bilingual children's performance in a conversational task had little correlation, in either language, with their performance in a definition task that was highly decontextualized (Snow,1987). This renders evidence to Cummins's theory that the BICS are actually different from, and not related to the CALP. However, Cummins was challenged by Romaine (1995) as dichotomizing and compartmentalizing language proficiency, which, she echoes Oller's view, should have a unitary factorial (Oller, 1978). Romaine also argues that bilingual proficiency is not tied to any particular factor. There are some aspects of proficiency, like oral grammar, which depend more on input from the environment, while others depend more on the personality or cognitive variables. She agrees with Harley (1987) that bilingual proficiency is a dynamic complex of traits that relate to classroom input, sociolinguistic context and the learner's attributes and arrives at the conclusion that Cummins' view of bilingual proficiency is a simplistic one. Edelsky (1982) also rejects Cummins' theory by questioning the validity of the tests on language proficiencies and cognitive abilities used in their experiments, among other arguments (Edelsky et al, 1982). Gardner (1986) argues with research evidence that second language achievement can be attributed to positive attitudes and motivations, not necessarily to the cognitive and linguistic factors proposed by Cummins.

Although Cummins' theory may not be a comprehensive and exhaustive view of
bilingual proficiency, it provides a very useful tool in explaining the success of some bilingual programs and the failure of others in bringing to light the importance of the learner's mother tongue. The fact that all the studies that favor bilingual education mentioned above use subjects that are balanced bilinguals is a strong indicator, if not a proof to support Cummins' assertions. Besides, the French immersion program also renders an excellent example to illustrate the important role of the mother tongue.

The success of the French immersion program for English-speaking children in Canada in the 1960s had given a boost to the effectiveness of bilingual education. As Cummins (1986) and Tsui (1992) have pointed out, the program has often been cited as an example of successful second language acquisition through using it as a medium of instruction. However, on closer examination of the program, the place of the mother tongue teaching is actually a very important factor that contributes to its success. Among the different models of the immersion programs, the most successful one was shown to be 'early immersion', where $100 \%$ French was used from Kindergarten to Grade 1, 80\% French from Grade 2 to 4, 65\%-80\% French in Grade 5, and $50 \%$ French from Grade 6 to 8 (See Appendix 2). It is a revealing point to note that from Grade 6 onwards, the use of mother tongue, English, actually carried equal weight as the use of the second language, French. And yet it was this group that performed as well as, or better than their English-taught comparison groups in Science and Mathematics, French and even the first language English. Such optimistic results were not shown in the early partial immersion model and late immersion model, where inferior performance in science and mathematics was occasionally found among immersion students when compared to the control group. Tsui (1992) attributes these findings to the suggestion that early partial immersion and late immersion students simply lacked adequate French to handle the complexity of the
subject matter taught in French. In Cummins' terms, the students have not achieved the lower threshold in their second language, which in turn impedes their cognitive functioning, whereas in the early immersion model, the use of the mother tongue helps students to grapple with abstract thinking at the Piagetian 'formal operation' stage (Piaget,1970). Therefore, the French immersion program lends support to Cummin's assertion that the L1 CALP is a deciding factor on the success of bilingual programs in terms of second language acquisition and also cognitive development.

To sum up the above discussion, although vernacular education is the most natural, economical and efficient form of education for children, bilingual education done in a proper manner can benefit students not only in language acquisition, but also in cognitive functioning. Cummins and researchers mentioned above have provided a useful framework for bilingual education by listing the necessary, if not sufficient, conditions for its success: the relatively high socioeconomic value of the native tongue and its maintenance especially when students have come to the formal operation stage of abstract cognitive and academic development. Bilingual education should be conducted in either the manner of early total immersion in a second language and the increasing use of the mother tongue before and when students come to a level that requires dealing with complex subject content, or the manner of introducing the use of the L2 as a medium of instruction when the student has achieved a sufficiently good enough standard in both the L 1 and the L 2 . The following section will be an appraisal of the bilingual education in Hong Kong before 1997 against these criteria.

### 2.6 BILINGUAL EDUCATON IN HONG KONG

When we evaluate the Hong Kong scenario of bilingual education before the language education reforms in the 1990s, the criteria for successful education listed in the previous section were absent. Early total immersion was not practiced except in a few international schools for foreigners and the well-to-do Chinese. But even in these schools, Chinese was only taught as one option among foreign languages, never given equal weight as English when students approached their formal operation years, as in the Canadian early immersion model. When the majority of students entered the EMI schools, they had very limited English proficiency, and they had to grapple with abstract concepts in their weaker language. Although their mother tongue was maintained in Chinese language and history lessons, it did not help them in understanding the non-language lessons. In Cummins' terms, their L2 had not reached the upper threshold to equip them for reaping the benefits of a bilingual curriculum. Swain and Johnson (1997) argued that instruction in English in Hong Kong secondary schools constituted a late-immersion model, in which bilingual teachers used the L2 as the medium of teaching for the majority students whose L 1 was the same as the community at large and was maintained, and who entered the program with similar and limited L2 proficiency.

As mentioned in the earlier section, optimal results found in the Canadian early immersion model were not shown in the late immersion model. Instead, inferior performance in science and mathematics was occasionally found among immersion students when compared to the control group. Likewise, in a large-scale longitudinal study on the effects of instruction in the first language (Cantonese) and the second language (English) on achievement for a large representative sample of Hong Kong
students during their first three years of secondary school, negative effects of immersion in English were found in science, history and geography, among bright students as much as weaker students (Marsh et al, 2000). Marsh and his team of researchers argues along the line of Cummins' threshold ideas that in order for students to benefit from late immersion bilingual program, their L2 competence needs to be higher for more abstract formal operational thought process. This has also been the official line of the Hong Kong Government in implementing the streaming policy of 1990 and then the mandatory guideline of allowing only 100 schools with student populations of higher English proficiency to be EMI schools while the rest have to use the mother tongue as the medium of instruction.

To reduce the negative effects of late immersion program on the cognitive development of the students of limited English proficiency before the education reforms, and even students of relatively lower English proficiency among the EMI schools after the reforms (as some fourteen CMI schools have successfully made their appeal to be included on the exemption list that do not have to abide to the mother tongue teaching policy as mentioned on Chapter one, P.24), many teachers resort to a mixed code of English and Cantonese in teaching, sometimes reading the English textbooks in English and then explaining in Cantonese; sometimes a chunk of English sentences followed by Cantonese translation; and sometimes even a mixture of English and Cantonese in one sentence. The Hong Kong Government alludes that this mixed-code teaching is one of the main reasons of the low language proficiency of the student population and hence has tried to address this issue by mandating a separation of languages and the banning of the use of 'mixed code' in the classroom, which nevertheless has met with vehement opposition from some linguists and educators. Whether code-switching is a stumbling block or building block to second language
acquisition is yet an unresolved issue. The following chapter will be a selected review on past literature on the topic of classroom code-switching, which is the focus of this research study.

## CHAPTER THREE:

## A SELECTED LITERATURE REVIEW ON CODE-SWITCHING

Against the background of the literature review on bilingualism and bilingual education, this chapter is devoted to an important feature of language use in bilingual contexts, that is, the alternate use of languages, most commonly referred to as code-switching. The first part of the chapter is a brief overview, incorporating definitions of code-switching and related concepts. This is followed by a selective review of the literature on code-switching in general, focusing largely on the syntactic and sociological aspects of code-switching, and the relationship between bilingual language proficiency and pattern variations in code-switching. The third part of the chapter focuses on code-switching in the classroom, to be narrowed down to code-switching in the Hong Kong classrooms.

### 3.1 THE DEFINITIONS AND SCOPE OF CODE-SWITCHING

### 3.1.1 THE DEFINITIONS OF CODE-SWITCHING

While linguists generally agree that language mixing is a natural consequence when two or more languages are brought into contact over a period of time (Appel \& Muysken,1987; Hoffmann,1991), there has been little agreement on the definitions of codes-witching or code-mixing, or other effects of language contact like borrowing. Pfaff (1979), for example, uses the term 'mixing' as a cover term for both
code-switching and borrowing. Muysken (2000, p.4), too, uses the term 'code-mixing' in a general sense and reserves the term 'code-switching' for 'the rapid succession of several languages in a single speech event', that is, only the alternational type of code-mixing. However, Gumperz (1982, p. 59) uses the term 'code-switching' as the cover term and defines it as 'the juxtaposition within the same speech exchange of passages of speech belonging to two different grammatical systems or sub-systems'. This is a broad definition that encompasses switching within a sentence, and in between sentences, with language systems of languages as well as sub-systems of dialects. In a similar way, Romaine (1995) and Macswan (2004) use 'intra-sentential code-switching' to delimit switching below the sentential boundaries and 'inter-sentential code-switching' to that beyond the sentence boundaries. Nevertheless, Singh (1985) and Sridhar and Sridhar (1980) reserve the term 'code-mixing' for intra-sentential switching, and use 'code-switching' for inter-sentential switching. In this research study, I will use the term code-switching broadly, covering both 'inter-sentential code- switching' and 'intra-sentential code-switching'.

### 3.1.2 THE SCOPE OF CODE-SWITCHING

Code-switching, like bilingualism, is a complex issue and can be studied from the micro-linguistic, psycholinguistic and sociolinguistic aspects. Micro-linguistics concerns the structures of language systems (Lyons, 1981) and when applied to code-switching, covers issues like the grammatical constraints and structural patterns of code-switching. As there are other disciplines that are concerned with language, there are also other distinctive perspectives of code-switching as well. The most common ones are psycholinguistics and sociolinguistics. Psycholinguistics, the study of language and mind, would be about the production and processing of
code-switching, and their relationship with the bilingual speaker's characteristics like language proficiency and age, etc. Sociolinguistics, the study of language and society, concerns the social functions and meanings of code-switching. The next section will be an attempt to address some of these issues with reference to related literature in the past.

### 3.2 CODE-SWITCHING IN GENERAL

Code-switching is a universal phenomenon across languages, national boundaries and social milieus. Before focusing on the issue of classroom code-switching, which is the theme of this study, this section will first of all discuss the linguistic analysis of grammatical constraints of code-switching in 3.2.1; the relationship between the pattern variations of code-switching and the speaker's language proficiency in 3.2.2, and the social functions and meanings of code-switching in 3.2.3.

### 3.2.1 THE GRAMMATICAL CONSTRAINTS OF CODE-SWITCHING

A number of the code-switching studies in the 1970s drew on Spanish-English data recorded in America and were hence language-specific and construction-specific (Muysken, 2000; Chan, 2003). Restrictions were proposed on switching at certain constructions. For instance, Timm (1975) noted that subject and object pronouns must be in the same language; an auxiliary and a main verb must be in the same language. From around 1980 onward, linguists began to look for universal constraints on code-switching behavior which was believed to be rule-governed. As grammatical constraints are not the focus of my research study on code-switching, I will just give a
brief summary of some theories which I use in my thesis and their counter-arguments.

### 3.2.1.1 The Equivalence Constraint

The equivalence constraint is defined by Poplack (1980, p.586) based on her study on Spanish-English switching as:

Code-switches will tend to occur at points in discourse where juxtaposition of L1 and L2 elements does not violate a syntactic rule of either language, i.e. at points around which the surface structures of the two languages map onto each other.

A classic example illustrating the Equivalence Constraint is as follows:

I told him that so that he would bring it fast. (English)
(Yo) le defe eso pa'que (el) la trajera ligero (Spanish)

I told him that pa'que la trafera ligero. (English-Spanish)
(Poplack, 1980, p.586)

Poplack and Sankoff (1988) predict problems at switch sites with languages of different word order. For instance, there should be no switches between adjective and noun in English and Spanish, because the single word adjective placement in English is basically AN (pre-modifying) while in Spanish is basically NA (post-modifying). Poplack's theory has been seriously challenged since in different language pairs, counter-examples of witches at sites prohibited by the equivalence constraint can be found, for example, in Bentahila and Davis's study on Arabic-French switch:

Example: bqat l'appartement

## Remained the apartment

"The apartment remained." (Bentahila and Davis, 1983, p. 312 )

In this example, the Arabic-French switch exhibits a surface structure of the Arabic ordering of VSO, which does not agree with the French ordering of SVO.

### 3.2.1.2 The Free Morpheme Constraint

The free morpheme constraint holds that 'a switch may not occur between a bound morpheme and a lexical item unless the latter has been phonologically integrated into the language of the bound morpheme.' (Sankoff and Poplack, 1981, p.5) A famous example quoted by Poplack is:

```
*eat- iendo
```


## Eat PRES PROG

"eating" (English-Spanish, Poplack, 1980, p.586)

Again, Poplack's theory is under criticism because of the many counter-examples found in different language-pairs such as Swahili-English (Scotton 1983) and Cantonese-English (Leung, 1987, p.91).

Example: ngo5 revise gwo3 dil bat1 gei3 laa3

I revise ASP CL notes PART
"I have revised the notes"
(Cantonese-English, Leung, 1987, p.91).

Here the aspect marker 'gwo3' is switched with the lexical item 'have' to indicate the present perfect tense, which is actually a violation of the free morpheme constraint. And although Poplack tries to explain away these counter-examples by classifying them as 'nonce-borrowing' (Poplack, 1988), the Cantonese-English example cited above is simply too transient and phonologically intact to be regarded as such.

### 3.2.1.3 The Dual Structure Principle

While Poplack propounds the compatibility of the participating languages in code-switching, other linguists suggest that there is actually a difference in the roles of these languages involved. Sridhar and Sridhar (1980) differentiate the 'guest constituent' from the 'host constituent' and defines their relationship in their Dual Structure Principle as follows:

The internal structure of the guest constituent need not conform to the constituent structure rules of the host language, so long as its placement in the host language obeys the rule of the host language.
(Sridhar and Sridhar, 1980, p. 412)

An example taken from his Kannada-English code-switch can well illustrate this principle:

> Ananu abba man of considerable courage.

> He is a man of considerable courage.
> "He is a man of considerable courage"
> (Kannada-English, Sridhar and Sridhar, 1980, p.412)

In this example, the guest constituent, English, carries a postmodifying phrase of the
noun "man". In the host constituent, Kannada, however, nouns are premodified only. Sridhar and Sridhar concluded, therefore, that the English constituent must have been formed according to English grammar, i.e. the grammar of the guest constituent, while the placement of the guest constituent obeys the rule of the host language.

A counter-example that does not obey the Dual Structure Principle can be taken from Kamwangamalu's data of Lingala- French code-switch:

Ezali probleme mo-nene te

It's problem big not
"It's not a big problem".
(Lingala/ French; Kamwangamalu, 1989, quoted in Myers-Scotton 1993, p.154)
Here in this code-switch, the French noun "problem" appears without the article; also the negation 'te' is put at the end of the sentence. Both features conform to Lingala syntax (the host constituent) instead of French syntax (the guest constituent).

### 3.2.1.4 The Matrix Code Principle

The above-mentioned example cited from Kamwangamalu's data of Lingala- French code-switch illustrates the Matrix Code Principle. While following the concept that the participating languages play different roles in code-switching as that of Sridhar and Sridhar, Kamwangamalu puts forward a stricter view than the Dual Structure Principle in his Matrix Code Principle as follows:

In every mixed discourse involving language $1(\mathrm{Ll})$ and language 2
(L2), where L 1 is identified as the Matrix Code (i.e. host code) and L2
as the Embedded Code (i.e. guest code), the grammar of L2 must conform to the morpho-syntactic structure rules of L1, the language of the discourse.
(Kamwangamalu, 1989, p.157)

This Matrix-Code Principle is also criticized for a number of reasons. Among others, the definition of the matrix language is problematic. Critics challenge the idea that the matrix language is always the one that provides more morphemes in any discourse sample and argues that sometimes it is hard to differentiate the roles played by the two participating languages (Bentahila \& Davis, 1998; Jacobson, 2001). Besides, the Matrix Code Principle is also violated by examples like the one in 3.2.1.3, where the word order of the embedded language, English, is kept instead of being dictated by the host language, Kannada.

### 3.2.1.5 Muysken's Model of Grammatical Constraints of Code-switching

Muysken (2000) proposes a comprehensive model of looking at grammatical constraints of code-switching. He suggests that constraints are perhaps relative to different mixing strategies or processes. In his model, all intra-sentential code-mixing (used as an umbrella term rather than code-switching) are differentiated into three basic processes: 1. Insertion of material (lexical items or entire constituents) from one language into a structure from the other language; 2. Alternation between structures from languages; 3. Congruent lexicalization of material from different lexical inventories into a shared grammatical structure (Muysken, 2000, p.3). These three basic processes are constrained by different structural conditions. Insertion is
associated with the constraints in terms of the structural properties of some base of matrix structure, such as the lexical and functional categories of a matrix language. Alternation is associated with constraints in terms of the compatibility or equivalence of languages involved at the switch point. Congruent lexicalization is grammatically unconstrained. Where the same grammatical structures are shared by two languages, words from both languages are inserted more or less randomly.

In this model, theories of grammatical constraints on code-switching can be classified and subsumed under different code-switching processes. Hence the Equivalence Constraint and Free Morpheme Constraint are under the category of alternation and congruent lexicalization; Dual Language Principle, Matrix Code Principle under the category of insertion.

These three basic code-switching processes are also operant to a different extent and in different ways in specific bilingual settings. Insertion is common in colonial or post-colonial settings, and recent migrant communities, where there is a considerable asymmetry in the speakers' proficiency in the two languages. Alternation is common in stable bilingual communities with a tradition of language separation. Congruent lexicalization is particularly frequent among second generation in migrant groups, bilingual speakers of closely related languages with roughly equal prestige and no tradition of overt language separation.

### 3.2.1. 6 The Model Adopted in this Study

Other than the Equivalence Principle, the Free Morpheme Principle, the Dual

Structure Principal and the Matrix Code Principle, there are also other theories like Myers-Cotton and Jake's Matrix Language Frame Model (1995), DiSciullo, Muysken and Singh's Government Constraints (1986), Santorini and Mahootian's Null Theory (1995), Macswan's Minimalist Approach (1999), etc. However, none of the grammatical constraints theories are powerful enough to be spared from counter-examples that disprove the theories. In my opinion, the nature of grammatical constraints on code-switching, like many other grammar rules, are descriptive, not prescriptive. They simply describe how mixing of languages work in certain languages, as they never have exhaustive power that sanctions certain forms of code-switching across languages. As such, I subscribe to the probabilistic view that it is more realistic and fruitful to try to establish what types of code-switching patterns are the more frequent ones, linked to different language pairs, different code-switching processes and contact settings, rather than to predict what types are disallowed (Treffers-Daller, 1994; Muysken, 2000).

When it comes to the grammaticality of the Cantonese-English code-switching in this study, I use an eclectic approach including the Equivalence Principle, the Dual Structure Principle and the Matrix Code Principle plus my native speaker's intuition as a Cantonese-English bilingual to check out the utterances found in the corpus I collected.

### 3.2.2THE CORRELATION BETWEEN BILINGUAL LANGUAGE PROFICIENCY AND PATTERN VARIATIONS IN CODE-SWITCHING

As defined in section 2.1, bilingualism represents a spectrum of language abilities
from the native-like mastery of both languages to the ability to produce only a few foreign words besides one's native language. A question that interests many linguists is: is there a relationship between the pattern variations in code- switching and the bilingual speaker's language proficiency?

According to Weinreich, 'the ideal bilingual switches from one language to the other according to appropriate changes in the speech situation (interlocutors, topics, etc.), but not in an unchanged speech situation, and certainly not within a single sentence' (Weinreich,1968, p.73). Linguists who hold similar views are language purists who believe that the pure language is the best mode of language. Any language mixing would imply an inadequacy of language proficiency on the part of the speaker. The purist view is also taken by the language policy makers of the Hong Kong Government and also Hong Kong educators like Cheung (1992), who regard code-switching as the cause of the alleged drop in English standard in the territory.

Many linguists believe, however, that code-switching is actually an indicator of language competence in two or more languages instead of a defect arising from insufficient knowledge of either language. Poplack, for instance, in her study of Puerto Ricans in the United States (with Spanish as L1 and English as L2), found that no construction of English/ Spanish code-switches violated the grammar of either language, and hence concluded that even the non-fluent bilingual had adequate knowledge of both languages to 'draw from each system only those which the other shares, when alternating one language with another' (Poplack, 1980, p.601). Another indicator in her study that showed the high linguistic requirement of the code-switching behavior was that balanced bilinguals showed a far greater percentage
of intra-sentential switches than those who were Spanish-dominant. Having established the grammaticality of code-switching, Poplack went on to comment on the relationship between the type of switch and the language proficiency of the speaker. From the findings that the Spanish-dominant speakers favored tag-like switches most (e.g. understand? You know), and that the balanced bilinguals favored intra-sentential code-switches most and tag-like switches least, she argued that intra-sentential code-switching required the most language skills and hence mostly spoken by balanced bilinguals.

Poplack's conclusion on the correlation between high bilingual competence and intra-sentential code-switching is a somewhat simplified explanation which is linguistically and sociologically unsound. Linguistically, she argued that extra-sentential code-switching types, including the independent sentences, 'require less knowledge of two grammars since they are freely distributable within discourse' (Poplack,1980, p.603). This is not supported by any evidence and may simply be refuted by the fact that to be able to utter a correct sentence in one's second language actually reflects a high bilingual proficiency. Sociologically, the author has neglected factors like the societal attitudes towards the excessive use of a second language in intra-ethnic conversation, which is at times very negative in certain social contexts. Moreover, Poplack's findings have been challenged by other studies. Bentahila and Davies (1992) found from the 1,545 corpus of Moroccan-Arabic/French code-switches used by Moroccan bilinguals that switching between whole clauses (including independent sentences or those conjoined by either co-ordination or subordination) was actually the most common pattern of code-switching among the older generation who were balanced bilinguals, whereas the intra-sentential switching
of small constituents was the most common among the younger Arabic-dominant generation. In the same vein of argument, Jacobson (1990) stipulated that there should not be intra-sentential code-switching in the classroom which is not a good model of bilingual education when he advocated his New Concurrent Approach mentioned in Chapter Two. The view of Bentahila, Davies and Jacobson runs contrary to Poplack's claim that intra-sentential code-switching is more likely to be associated with high language proficiency than inter-sentential code-switching. Bentahila and Davies also rightly point out that language proficiency is only one factor to account for certain code-switching patterns. One should look beyond this to study the interplay between other factors like discourse functions and the socioeconomic value, etc. assigned to each language in the community under study. This is an important issue of my research on classroom code-switching and will be further explored against the Hong Kong context in the following chapters.

### 3.2.3 THE SOCIOLINGUISTIC ASPECT OF CODE-SWITHCING

So far we have approached the study of code-switching from a micro-linguistic and a psycholinguistic viewpoint. This section will be devoted to the sociolinguistic perspective of code-switching yielding to both a macro-level and micro-level of analysis. By macro-level, I mean the socio-economic-political value of code-switching in the larger social context; by micro-level, I refer to the meaning and function of code-switching in a certain communication context. For the former, the structural-functional perspective (Martin-Jonese, 1989) or the macro-societal perspective of code-switching (Li Wei, 1994) will be discussed; and the latter, the micro-interactional perspective of the same authors (Martin-Jones, 1989; Li Wei,1992, 1994).

### 3.2.3.1 Macro-level Analysis

Martin-Jones summarizes sociolinguistic research tradition on bilingualism or language alternation into the structural-functional and the micro-interactional perspectives. The structural-functional perspective is the macro-level analysis which looks at the functional differentiation of languages in bilingual communities, and it includes the work of Weinreich (1953), Ferguson (1959) and Fishman (1971). Li Wei names this the 'macro-societal perspective', and points out that it is 'founded on the assumption that individuals' language behavior is structured by social, situational context, and what activities individuals produce are seen to be the result of, or at the very least to be greatly influenced by, the organization and structure of the society in which they live' (Li Wei,1994, p.6). The structural-functional/macro-societal perspective can be further divided into the complementary distributional model and the conflict model.

In Martin-Jones' view, Weinreich was the first one to approach the study of language alternation from a structural-functional perspective. He studied how the functional differentiation of languages in bilingual communities could prevent language interference. According to Weinreich, as said in the previous section, 'the ideal bilingual switches from one language to the other according to appropriate changes in the speech situation' (Weinreich,1968, p.73). This idea of the complementary functions of languages is further pursued by Ferguson, whose concept of 'diglossia' refers to the two varieties of linguistic systems used in a speech community: a formal and high form and a vernacular and popular low form, which differ from each other in function, prestige, literacy heritage, acquisition, standardization, stability, grammar, lexicon and phonology (Ferguson, 1959). The same idea is later on developed into the
'alternate use of two or more languages to fulfill the compartmentalized societal functions in a given society' (Platt, 1977).

A similar taxonomic approach to language differentiation is extended by Fishman. He pivots his analysis on the notion of 'domain', which is defined as:

A socio-cultural construct abstracted from topics of communication, relationships between communicators, and locales of communication, in accord with the institutions of a society and the spheres of activity of a speech community.
(Fishman, 1971, p.587)

For instance, a husband and wife (relationship between communicators) talking about domestic affairs (topic of communication) at home (locale of communication) would constitute the family domain, which would require a different language variety from that used in a 'work domain'. Martin-Jones (1989) has pointed out that Fishman's concern is the abstract social regularities underpinning language use and language choice. He has not made connections between these abstract constructs with the actual speech events. Martin-Jones also goes on to point out four problems with Fishman's model which is a continuation of Weinreich and Ferguson. The first problem is that in such a model of the complementary distribution of languages, the focus is on norms and consensus, and the possibility of individual language choice is denied. The second problem is that this model reinforces the legitimization of the High language variety by describing the language phenomenon as a natural reality, instead of accounting for the origins of the functional division of labor between the High and Low by bringing in the concept of power. The third problem is that the lack of connection between
socio-cultural norms and individual language choice is a deterministic and rigid account of the creative and variable way of language use among bilinguals. Lastly, it fails to account for language change over time, as diglossia is characterized by its stability, and can be maintained for centuries.

Li Wei (1994) elaborates on Martin-Jones' analysis to propose the conflict model as a macro-level of studying language alternation versus the complementary distribution model. The conflict model is concerned with the social origin of functional differentiation of languages. The issue of code-switching is closely related to power relations. Linguistic groups are divided according to the political and economic divisions within the framework of the larger society or the state, and the origin of language differentiation involves the imposition of power of one language group upon another. In view of globalization and the hegemony of English in the socio-economic-political arena of the world, English proficiency is a form of 'cultural capital' (Bourdieu, 1977; 1991) that is exclusively owned by the elite but denied access to many in developed as well as developing countries alike (Tollefson, 1995; Bourdieu, 1991; Lin, 1999). For instance, McKinnon (1984) concludes in his research on the use of English and Scottish Gaelic on the islands of Barra and Harris in the Western Isles that English is an intrusive language of power used in economic activities, administration and communications imposed on Scottish Gaelic which is the language of solidarity. In the same strand of argument, language policy and formal schooling is often a means used by the powerful to legitimize and institutionalize their vested interests in the status quo, the process of which is given the term 'symbolic violence' (Bourdieu, 1984). English teachers can hence either perpetuate inequalities in the classroom, or empower their students to deal with communicative situations in
which institutional power is weighted against them (Fairclough, 2001). The alternate use of the language of power, often a European language, and that of the powerless, often a vernacular, in all social discourse, especially in the classroom, therefore, should be analyzed with the conflict model in the macro-societal perspective.

While the complementary distribution model focuses on the compartmentalized use of languages in maintaining language stability, the conflict model focuses on inequalities and conflict in language use. Nevertheless, they both share the view that individual language choice is shaped, if not determined by social forces. Since the late 1970s, there has emerged a new trend of studies on language use which focuses on the interpretive meaning of language alternation in face-to-face interaction, basing on the belief that people are active agents in creating their own meaning in strategies of code-switching. The following section is a summary of this micro level of analysis.

### 3.2.3.2 Micro-level Analysis

Gumperz (1982) differentiates situational code-switching from metaphorical code-switching in that the former refers to alternate use of language varieties in accordance with a change in setting (e.g. church, court, home, etc.) and in the audience (e.g. government officials, students, friends, etc.), whereas the latter refers to the type of language use where speakers 'build on their own and their audience's abstract understanding of situational norms, to communicate metaphoric information about how they intend their words to be understood' (Gumperz, 1982, p.61). Whereas situational code-switching should be subsumed under macro-level analysis of sociolinguistics, metaphorical code-switching is a topic for micro-level of analysis.

Gumperz (1982) puts forward that metaphorical code-switching is a kind of communicative strategy available to the bilingual speaker not unlike the use of styles or different varieties of a language available to a monolingual speaker which can be used symbolically to indicate complex social relationships. He argues that it can be analyzed by Grice's view of conversational implicature (Grice, 1975). In Grice's framework, conversation is a cooperative activity in which both parties try to understand each other according to the literal meaning of what is communicated, and also inferences based on the cooperative principles of quantity (the right amount of information), of quality (being truthful), of relation (being relevant) and of manner (being unambiguous and proper). When code-switching is used in, for example, repeating the same utterance, then the maxim of quantity is flouted because the speaker is saying something more than is required, and in another language (in Gamperz's term, the 'they code' instead of the 'we code'), which invites the addressee to interpret what is said in a deeper way than the surface meaning of the utterance. This is characterized as an 'implicature'.

Gumperz also proposes the notion that metaphorical code-switching is a shift in 'contextualization cues', which is defined as 'any feature of linguistic form that contributes to the signaling of contextual presupposition' (Gumperz, 1982, p.131). Contextualization in general refers to 'all the processes by which members construe the local and global contexts which are necessary for the interpretation of their linguistic and non-linguistic activities' (Auer, 1990, p.80). To Gumperz and Auer, context is flexible, as it is continually reshaped over time. It is reflexive, in that 'language is not determined by context, but contributes itself in essential ways to the construction of context' (Auer, 1992, p.21). It is not just 'brought along', but also
'brought about' by the participants in a conversation who make joint efforts to construe it. Therefore code-switching is one kind of contextualization cues (or contextualization conventions) among others including gestures, postures, kinetics etc. Contextualization cues build up contrasts, which affect inferencing or restrict the number of possible inferences in an ongoing utterance interpretation (Auer, 1995).

An example Auer uses to illustrate the interpretation of code-switching as a contextualization cue is the code-switching from Spanish to German in a South American family in Germany (Auer, 1998, p.6):

Aqui no hay aqui no hay nichtraucher ("here we don't have no smoking")

Explicature: The speaker is telling the addressee that here they don't have no smoking regulation.

Implicature: No smoking in the living room is only a German regulation, therefore, it needs not be observed. Such regulation is silly, unreasonable.

Here the German word nichtraucher is a contextualization cue which affects inferences. It constrains inferences by pointing to this particular context, and highlights a contrast which can be seen as the speaker distancing himself from the German regulations. And the distancing implies a disapproval attitude in the end.

According to Auer, contextualization cues have the following properties:

1) They do not have referential (de-contextualized meaning) of the kind found in lexical terms. The same contextualization cue may have different meanings in different settings. Hence their interpretation depends on the process of inferencing,
which is dependent on the context of their occurrence.
2) Redundancy of coding and co-occurrence of cues: contextualization cues often bundle together. The same cue may occur many times, or different cues occur at the same time. This is to facilitate the inferencing process by repeating the meaning potential of one single cue, or to rule out the possibilities of other interpretations.
3) Contrastive vs. inherent meaning potentials of cues: there are two ways in which inferencing leads to contextual interpretation. In most cases, contextualization cues establish contrast and influence interpretation by punctuating the interaction by these contrasts. For instance, cues may build up an opposition between stretches of talk in a loud and in a low voice, or a high or in a low rate of articulation. In this process of inferencing, the only meaning the cue has is to 'indicate otherness', to establish a contrast that indicates something new is to come. Many contextualization cues do more than just establishing contrast; they restrict the number of plausible inferences of what this might be, by having an inherent meaning base or meaning potential. The basis of such an inherent meaning potential may be conventionalized (arbitrary) or natural (non-arbitrary), or a mix of both.
4) Conventionalization vs. naturalness of cues. An example of purely conventionalized meaning potential of contextualization cues is code-switching. When language $A$ is switched to language $B$, this does not only establish a contrast, but also limit other possibilities of interpretation because of the attitudes and values associate with these languages, which may be different in different communities (hence arbitrary). Natural (non-arbitrary) cues are the communicative strategies that are at the disposal of every human being without having to acquire them. Examples will be turn-final intonation contour or gaze.

Both have a natural meaning base that is in general the same across cultures (Auer, 1992;1995).

Auer asserts that code-switching shares the above-mentioned properties of contextualization cues, and therefore should be investigated at the conversational level as such. He also proposes that Conversational Analysis which focuses on the sequential pattern of conversation in the process should be used as a framework to study contextualization cues. Conversational Analysis as a methodology of studying code-switching will be discussed again in the next chapter. Its relevance to the study of code-switching is obvious here, because firstly, it gives priority to 'the sequential implicativeness of language choice in conversation, i.e. the fact that whatever language a participant chooses for the organization of his or her turn, or for an utterance which is part of the turn, the choice exerts an influence on subsequent language choices by the same or other speakers' (Auer, 1984, p.6). Secondly, it also 'limits the external analysis'. In Conversational Analysis, with 'context' meaning 'the immediate sequential environment of a turn' (Markee, 2000, p.28), ethnographic data such as socioeconomic status, gender, biographies of the participants in the conversation are not used a-priori to explain how the conversation is constructed and made sense of, unless there is internal evidence in the conversation to provide a warrant for the introduction of such data.

Auer further identifies 'discourse-related code-switching' and 'participant-related code-switching'. The former refers to code-alternation which contextualizes some features of the conversation and contributes to the organization of the discourse, e.g. a shift in topic, a change in participant constellation, etc. The latter refers to
code-switching which indicates the speaker's preference, which may be due to the speaker's wish to avoid the language in which he has little competence, or to a deliberate decision based on political considerations (Auer, 1995). Auer concludes that discourse-related code-switching has received a lot of attention in the study of the topic, while matters of language choice or language negotiations are neglected, and should be subsumed under the micro-level sociological study of code-switching.

The last writer I would like to mention in the micro-interactional model is Myers-Scotton and her 'markedness' theory of social motivation of code-switching. Based on her work with Swahili-English bilinguals in Africa, Myers-Scotton (1983, 1992 and 1993) suggests that code-switching is an index to the rights-and-obligations sets between participants in a given interaction derived from situational factors. Social interactions are, she argues, conventionalized in all communities and carry almost fixed schema about role relations and social behavior, including linguistic behavior. People use code-switching to 'negotiate interpersonal relationships, instead of being determined by them' (Auer, 1995, p.128). Hence an unmarked code-choice is the strategy of the bilingual speaker to bring into the conversation all the a-priori social factors agreed upon by all members of the community, whereas a marked choice is made when the speaker wants to dis-identify with the unmarked rights and obligation set for an interaction and negotiate a change in the social distance holding between other participants and him/herself. Here the focus of the issue of code-switching is put on individuals' choice, with the societal factors behind to limit interpretations. Although Li Wei (1998) has rightly pointed out that this theory is best applied in diglossic situation where a particular language is associated with particular settings and another language with other settings, the focus on individual language choice and
negotiations puts this under the umbrella of the micro-sociolinguistic model of code-switching. .

### 3.3. CLASSROOM CODE-SWITCHING IN GENERAL

Code-switching in the bilingual classroom has been viewed both positively and negatively by researchers. In the early days of classroom code-switching research, negative views were often prevalent. Searle (1969) criticized the permissive use of the mother tongue which crowds out the foreign language whenever the talk becomes 'serious'. Grosjean recorded the opinions of a number of bilinguals who suggested that 'code-switching is a sign of laziness, a compensatory strategy for those who lack proficiency in a language, and a source of embarrassment' (Grosjean, 1982). Chick (1996), from a study of one video-recorded mathematics lesson, suggested that the chorusing behavior of the students and the teacher's cues to elicit such chorusing, alongside other strategies like bilingual labeling of key terms in the monolingual textbook, were for the purpose of 'face-saving' to 'hide their poor command of English'. This view was echoed by Arthur, who, from her study of Botswana primary classroom, concluded that codes-switching provided insights into the collusion of teachers and pupils in mutual face-saving over the adequacy of their classroom interaction' (Arthur, 1996, p.18).

Other studies showed code-switching behavior in a better light. Wong-Fillmore's study (1980) on the Cantonese (L1) and English (L2) bilingual program in kindergartens in the United States was one of the early examples. Wong-Fillmore
compared an English-only class and a bilingual class and reported that for the bilingual teacher, the amount of the L1 use enabled interaction with individual students in set work, and her use of more structured lessons to her Cantonese students was to ensure maximum exposure to the L2 which facilitates L2 acquisition, while the monolingual teacher's more open class format would not benefit the less active students in class.

The positive functions of code-switching were explored more thoroughly by qualitative research paradigm, which took a fine-grained, in-depth analysis of the classroom discourse (these research methodologies will be discussed in detail in the next chapter on research methodology). Educators in the United States and beyond began in the late twentieth century to look at the functions of code-switching in the classroom and the roles it played in both language and non-language classroom discourse. Ferguson (2003) succinctly summarized the research findings in the functions that they claimed for classroom code-switching into three broad categories:

1. Code-switching for curriculum access: to help students understand the subject matter of the lessons.
2. Code-switching for classroom management discourse, e.g., to motivate, discipline and praise students, signal a change of footing, negotiate task instructions and so on.
3. Code-switching for interpersonal relations, e.g., to humanize the affective climate of the classroom and to negotiate different relationships and identities between teachers and students.

Another taxonomy of classroom code-switching functions was proposed by

Pennington (1995). She identified the strategic as well as the compensatory motives of the use of the mother tongue in content classroom. For compensatory motives, the L1 was used to compensate for the students' and teachers' shortcoming in low language proficiency, etc., and for some general constraints like the difficult syllabus. For the strategic motives of the use of the mother tongue, which were proactive and planned intentions of language use, Pennington mentioned items like 'to allow students to control classroom communication', 'to perform interactive communication', etc.(Pennington,1995, p.97-8). Still another taxonomy of classroom code-switching was proposed by Probyn (2001), who observed in English-medium content classrooms in Africa that code-switching was a marked strategy that the teachers used in response to their perceptions of students' conceptual, language learning and affective needs. While Pennington's model highlighted the motives and purposes of classroom code-switching, and Probyn's model focused on students' needs, Ferguson's model described the functions of the code-switching per se, and therefore is a more helpful model for the following discussion of the various studies on classroom code-switching functions. It offers a more comprehensive and concise model, and because the functions of code-switching in these studies are all strategic, they do not carry any negative implications as suggested by the word 'compensatory' used in Pennington's model (which will be elaborated in detail in the next section on the Hong Kong education scenario).

To illustrate the function of classroom code-switching in curriculum access, Ferguson used Martin's study. In his empirical study of two primary classrooms in Brunei, Martin (1999) showed that codes-switching between English and Malay (Ll) helped teachers and learners to unpack the meaning of the monolingual text in a sociological
context where there was a mismatch between language policy and actual language practice in the classroom, because the students' English proficiency at the end of the third year of primary school did not allow the smooth transition to English as the language of instruction for content subjects in the fourth year. The study by Gutherie and Gutherie (1987) also favored the use of the L 1 in curriculum access on the part of the students. By encoding the lessons of two teachers (one bilingual and one monolingual) working with Cantonese learners in a Californian elementary school with different conversational-acts, Gutherie and Gutherie found that the bilingual teacher was very consistent in her use of language with groups of both higher and lower proficiency in English, while the monolingual teacher varied according to the group he was working with, indicating less time for the low-proficiency group and less ability to manage teaching/learning interaction with the group. The quantitative study was then followed by a qualitative analysis of the audio-recording. Focusing on the bilingual teacher's use of Cantonese, the researchers identified strategic functions of the L1 in translation, clarification, and checking for understanding besides other functions. These all helped students access the difficult curriculum taught in an L2. On the other hand, the monolingual teacher reprimanded any use of Cantonese by his students and interpreted those utterances which had a direct bearing on the lesson as diverting from the lesson. Gutherie and Gutherie's study showed that language minority students in the United States were disadvantaged in English-only lessons, but were given a fair chance in learning the subject content and the second language as the majority students by means of code-switching in bilingual classes.

Gutherie and Gutherie's study also showed that classroom code-switching fulfilled the function of classroom management and negotiating different identities as described in

Ferguson's model. In his study, the mother tongue was used for classroom procedures and directions, and hence management; it was also used as a 'we code', and hence negotiating identity on the part of the teacher in moving out of his/ her authoritative teacher's role into one of co-membership in the same language community. The same findings were echoed in Zentella's study of two bilingual classes in New York for over two months. Zentella (1981) identified that bilingual teachers code-switched between Spanish and English to evaluate the students' response besides using the Ll (Spanish) and the L2 (English), and these switches performed different communicative functions in classroom management such as making an aside, quoting, specifying a particular addressee, moving in and out of the teaching/learning frame, etc. Similar findings on the function of code- switching in classroom management was shown in Milk's (1981) study on the Spanish-English bilingual classroom. He worked with audio-recorded data on a twelfth-grade civics class taught by English-Spanish bilingual teachers in California, and found that English dominated in the teacher's directives ( $92 \%$ ) while there was a greater balance between the two languages in other functions. He concluded that the predominance of English in giving directives and metastatements, such as to help the students see the structure of the lesson, etc, put Spanish-dominant students at a disadvantaged position.

Research carried out in multilingual or post-colonial contexts beyond the United States also revealed similar functions of classroom code-switching. Adendorff (1996), by detailed analysis of the recording made on the entire lesson of verbal activities in an English lesson, biology lesson and geography lesson in a Kwazulu high school, showed that code switching served complex classroom management functions of gaining credibility, encouraging students, marking frames, and those of asserting
authority and building relationship on the part of the teachers. Switches between Zulu and English played important functions of 'guiding the participants' interpretation of academic goals and intentions' (Adendorff, 1996, p.405) (similar to Ferguson's 'management of classroom discourse'), as well as 'their interpretation of social relationships in the classrooms' (ditto) (similar to Ferguson's 'interpersonal relations in the classroom'). Eldridge, from his study on a Turkish secondary school junior classes, concluded that the majority of the code-switching instances served pedagogical purposes, such as eliciting equivalence, floor holding or acting as stopgaps (similar to Ferguson's 'curriculum access'), making comments or evaluations on language tasks as metalanguage (similar to Ferguson's 'management of classroom discourse'), moderating the tone to avoid conflict, showing alignment and disalignment (similar to Ferguson's 'interpersonal relations in the classroom'). He asserted that while the ultimate goal for L2 lessons should be for the use of the target language in isolation, code-switching should be viewed as a developmental strategy likened to interlanguage, and that premature attempts to reduce or ban its use would impede rather than facilitate second language acquisition (Eldridge, 1996).

Having examined some positive and negative views on classroom code-switching, and the roles it plays in the content classroom by analyzing selected research done in the United States and some post-colonial contests using Ferguson's model, I am now turning the focus to research carried out on Hong Kong classroom codes-switching.

### 3.4 CLASSROOM CODE-SWITCHING IN HONG KONG

This section will examine the situation of language use in the English-medium classrooms in Hong Kong, and also how language experts and educators in Hong Kong look at code-switching.

A mismatch between education language policy for English-medium schools and the actual classroom language practice described in the previous section (Eldridge, 1996; Martin, 1999; Probyn, 2001) has also been found in research in Hong Kong. A study on language use in the content lessons of fifteen bilingual teachers from five EMI schools representing a cross-section of English language proficiency and socio-economic backgrounds of student population carried out by Johnson (1982) showed that only $43 \%$ of class time was in English; $48 \%$ was in Cantonese and $9 \%$ in mixed code of Cantonese and English. Code switches were categorized as full switches consisting of two or more utterances in the switched code, and insertion switches, which consisted of a single utterance in the inserted code. It was reported that there was an increasing average amount of English from lower forms to higher forms, and there was less English used in the lower band schools. While full switches remained broadly constant across form levels, the number of insertion switches decreased from Form 1 to Form 3. And there were great varieties in the teachers' code choice: one teacher used only English while at the other extreme, one teacher only used English for 'good morning, class' and 'goodbye, class'. The author concluded from the findings that the determining factor was the amount of English used by the teacher: the more English the teacher used the less was his/her need to switch. As regards the functional differentiation of the two languages, it was reported that topic
statements were normally presented in English, followed by explanation in Cantonese and a restatement or conclusion in English. English was used when working from the textbooks, which were all in English, and then Cantonese would be for social and interpersonal functions. These differentiations for the use of English against the use of Cantonese were summarized in the dichotomy of text-dependent versus text-independent, formal versus informal, didactic versus explanatory functions. At the end of the study, the author concluded that the bilingual teaching was effective, being adapted to the wide range of pupils with different abilities, needs and aspirations, and that bilingual code was sociologically desirable even in the classrooms where the pupils had a high level of English proficiency to 'humanize' the classroom climate (Johnson and Lee, 1987, p.107)

In his observation of the classes in the same EMI schools almost ten years later in 1991, Johnson found that the amount of English used was much reduced from a 43\% to $15 \%$; Cantonese and code switching, however, was increased from $48 \%$ to $65 \%$ and from $9 \%$ to $20 \%$ respectively. And there was no sign of the increased use of English when moving up the classes. It is also found that the C-e, or Cantonese with embedded English terminology, was the dominant mode in science and mathematics in Form 6 and 7 (Johnson, 1991, p.13).

As mentioned in Chapter One, code-switching in the pseudo-EMI schools (where a mixed code of English and Cantonese instead of English as stipulated by the official policy is used as the medium of instruction to explain the English textbooks and prepare students for taking English tests and examinations) has been identified as the
major cause of low level of English proficiency among Hong Kong students. The Educational Research Journal, a government-funded journal, published an article that read: "the mixing of languages that exists in most Hong Kong secondary schools serves neither the goal of academic achievement nor second language learning to maximum effectiveness" (Swain,1986, p.6).

That the official attitude towards classroom code-switching has remained negative in Hong Kong echoes what is happening in other post-colonial contexts. Ferguson (2003) has insightfully pointed out that this negative attitude stems from language standardization and an associated 'standard language ideology' (Ferguson, 2003, p.45), which consists of, among other things, beliefs that the standard language is distinct and superior to other varieties of the language. The author has also rightly pointed out the naivety of such a belief in that pure language no more exists in the world than pure races. Code-switching is actually an inevitable and necessary strategy in helping students to cope with the demand of an English curriculum given the constraint of the low English level of the students. The following studies are some of the strong advocates for code-switching in Hong Kong.

In a survey carried out by Hirvela and Law (1991), nearly $80 \%$ of the 246 primary
and secondary school teachers under study favored the use of code-switching at the lower secondary level, which was seen as a reasonable solution to the problem of the change in the medium of instruction in Form one. Similar results were reported by another survey on 193 secondary schools (Shek et al, 1991). Furthermore, So (1992) argues that classroom code-switching only reflects the language reality of bilingual communities. It may be seen as an efficient mode of communication since Hong Kong students achieve high level of academic attainment particularly in mathematics and science, where the mixed code is the dominant mode (Johnson, 1991). Some organizations defend the use of code- switching by rejecting the government's stand that code-switching is harmful to language acquisition as lacking in empirical evidence (Language Center, HKU 1989; Boyle 1997; Linguistic Society of Hong Kong 1992).

In her defense of code-switching, Lin explored its strategic functions first in English lessons and then in content lessons. After observing 24 junior form English lessons of 4 teachers from different secondary schools, Lin (1993) remarked that language alternation served the strategic function of marking discourse boundaries, e.g., switching from lecturing to disciplining, of marking a switch in role-relationship, e.g., from formal to informal and also of modifying the participation framework, e.g., addressing the whole class or addressing an individual student. The author also remarked that at other times, language alternation is used for explaining difficult concepts such as grammar and vocabularies. There were rather fixed patterns of language alternation, with grammatical rules done in an L2-L1-L2 sequence, vocabularies in L2-L1 sequence, and digressions (additional and related grammatical points) in L1. These patterns, the author believed, reflected the teachers' response to the conflicting demands of fulfilling the requirement for teaching English in English
and for ensuring that the students understand the teaching points. Based on a critique of Johnson and Lee's in 1987, the same author elaborated on the use of code-switching in the content subject classroom. Instead of just making a shift in discourse or frame, the use of the students' mother tongue might be used to appeal to common native cultural norms and values for admonishment, to establish a warm and friendly atmosphere, She used the term 'English dominant academic bilingualism' (Lin,2001, p.152) and 'Cantonese-annotated English academic monolingualism' (ditto, p.153) to describe the HK classroom situation in which the teacher was not there to establish academic bilingualism, but to use Cantonese to help students to understand the instruction in English. Lin also echoed Bourdieu's view that English was a form of 'cultural capital' that could only be accessible to the lower class children from the classroom (Bourdieu, 1977 and 1991), and therefore criticized the Government streaming policy which would deny some children of the opportunity to obtain this 'cultural capital' as a kind of social injustice.

While the Hong Kong Government dwells on the negative side of classroom code-switching, and the opponents to the Government's language reform dwell on the positive side of code-switching, Pennington took a more balanced study of the issue. A study on the classroom discourse of eight Chinese bilingual English teachers by observation at different points in the 1992-3 academic year revealed compensatory motives as well as strategic motives for the use of the mother tongue (Pennington, 1995). For compensatory motives, the L1 was used to compensate for the students' shortcoming in low language proficiency, low academic ability, low motivation and poor discipline. It was also used to compensate for shortcomings in the teachers, such as a lack of knowledge of the language, a lack of knowledge of the subject matter, a lack of preparation and a lack of interest or motivation. Besides, it was used to
compensate for general constraints like the difficult content/lexis of the lesson and a lack of time to complete lesson activities or to cover syllabus. For the strategic motives of the use of the mother tongue, Pennington added to what has been found in other studies mentioned above the items of 'to allow students to control classroom communication', 'to establish discipline in a way which stresses the students' responsibility or in serious cases', 'to lower the level of challenge' and 'to gain students' long-term attention and response' (Pennington,1995, pp.97-8). In conclusion, Pennington asserted that while it was unrealistic to advocate an all-English policy for all EMI classes in Hong Kong, the use of English could be supported by other techniques like using simplified English or reducing the complexities of content instead of using Cantonese. Teacher training should be strengthened to help bilingual teachers to examine their own language use and evaluate the effectiveness of different types of bilingual teaching.

Similar views were expressed by the same author in a study carried out on the English language lessons conducted by five graduates of a BA course in Teaching English as a Second Language (Pennington, 1996). Pennington concluded that both the teachers' and students' language use in Hong Kong moved away from a pure split language ('diglossic') profile of English for institutional interaction and academic content, and

Cantonese for conversational interaction and off-lessons vernacular content
(Pennington, 1996, p.172). There had been a narrowing and centering of English away from its medium of instruction and communication towards a profile of English as
syllabus content, while the use of Cantonese was expanded to both the medium of instruction and institutional interaction. Under this pseudo-EMI status, the author concluded, the use of the mother tongue had many potentially negative effects on language learning, because the students' exposure to the second language was limited in both quantity and variety of usage. Students might also be given a false impression of the nature of the second language as a formal mode of communication. Besides, the learning of English through the translation of Chinese might lead to a misunderstanding of the translatability of concepts between the two languages and the two cultures.

### 3.5 CONCLUSION TO CHAPTER THREE

So far we have seen from past literature on bilingual education and code-switching that these are controversial issues that can be studied from different perspectives. In the Hong Kong educational scene, there has not been any consensus among Government officials, linguists, educators and parents as to whether it is beneficial for language acquisition to keep the two codes (Cantonese and English) strictly apart, or whether to mix the two codes; whether it is advisable to stipulate the policy of streaming $30 \%$ of the secondary schools into the English-medium and $70 \%$ into the Chinese-medium schools. The objectives of this research study will be an attempt to bring insights to these questions which have already started ongoing investigations in the Hong Kong context. While opponents to the Government's language reforms
accuse the language purists' stand on code-switching as lacking in empirical evidence, I find that neither are their claims supported by research on the micro-linguistic aspect of the issue, especially when it comes to the 'hows' of code-switching in order to facilitate language acquisition. It is hoped that this study will help fill the missing gap and arouse more attention to this important but neglected aspect of classroom code-switching. The next chapter will be a discussion of the issues related to research paradigms and methodologies.

## CHAPTER FOUR : METHODOLOGY

From the selected literature on bilingual education and code-switching summarized in the previous two chapters, it can be seen that these are indeed complex and controversial topics. There has been little consensus among linguists and educators as to the optimal age of starting bilingual education, the model of bilingual education, the place of the mother tongue in second language acquisition, and the effect of using code-switching in the classroom on second language acquisition. In the Hong Kong education scenario, the Education and Manpower Bureau (the former Education Department) has adopted Cummins' theory that the development of the CALP (Cognitive/ Academic Language Proficiency) of the second language is dependent on that of the CALP of the first language, and that additive bilingualism can only be developed after both the mother tongue and the second language have both reached an upper threshold. Hence the Hong Kong Government has stipulated that apart from the one-hundred-strong secondary schools with the student population of the highest language proficiency in both English and Chinese, all other schools in Hong Kong have to use the mother tongue, Cantonese, as the medium of education in Form three and below. The other stance taken by the Government is the purist stance of language learning that second language learning can be most effective when the first and the second languages are kept apart, hence stipulating that no mixing of languages is allowed in the EMI schools. Against this background, the author has carried out a research study on the topic of classroom code-switching in bilingual education. This chapter will be a write-up on the research objectives, research design, methods of investigations, and the related issues of validity and ethics.

### 4.1 RESEARCH OBJECTIVES \& RESEARCH QUESTIONS

In response to the Government's uncompromising stand against the use of code-switching in the classroom, many linguists and educators in Hong Kong are suspicious and critical. Writers like So (1992) and the Linguistic Society of Hong Kong (1992, a, b) refute the validity of the claim that code-switching is a main cause of the allegedly falling standard of English and Chinese among the student population in Hong Kong, saying that it is neither research-based nor practical to require teachers and students to keep the two languages apart, and that mixed code is a stepping stone instead of a stumbling block to bilingualism. The Dean of the Faculty of Education of the University of Hong Kong, when commenting on the problem of the medium of instruction, wrote that "the answer is already being provided at the ground level, not at the government policy level" and that "neither English nor Chinese, but a flexible mixture of both - perhaps the best answer." (Reynolds 1984, p.73; quoted in Boyle, 1997, p.85). Luke (1992) asserted that some research findings suggest that mixed-code is under certain circumstances a more effective medium than either Chinese or English. So (1992) supported mixed-code teaching as being appropriate for Hong Kong and conducive to high academic success, especially in Mathematics and Sciences, where code-switching was found to be most commonly used in the upper forms (Johnson 1991).

Apart from the above-mentioned pedagogical viewpoints, there were also sociological viewpoints expressed by educators and linguists. So (1992:86) described the streaming model as the 'linguistic Berlin Wall of the 1990s', which was divisive and discriminatory Lin (2001) criticized the streaming policy and the separation of languages as taking away the 'cultural capital' from children of the lower class and was therefore a kind of social injustice. In addition, she also demonstrated by research the communicative and pedagogical functions of code-switching, which has been described in chapter three in detail.

It can be seen that thus far, linguists and educators who oppose the government's language policy mainly argue on sociolinguistic grounds, i.e. the potentially divisive
and discriminatory nature of the streaming policy, and the communicative/ pedagogical functions of code-switching. Little research has been done on the negative aspect of classroom code-switching alongside the positive aspect in the Hong Kong classroom. In addition, little has been said about the micro-linguistic (or 'linguistic' linguistic) aspect of the issue, that is, is there any correlation between the linguistic properties of the code-switching used by the teachers and the English proficiency of the students? If there is, maybe some extrapolations can be made on the way Cantonese and English should be made in subject content classrooms to facilitate English language acquisition. The objectives of this research study are therefore twofold: (a) to study the communicative/pedagogical functions of classroom code-switching in its totality in relation to learning the subject and learning English; (b) to fill the micro-linguistic gap of the issue of classroom code-switching which is left largely unattended in past research in the Hong Kong educational scene.

The objectives of this research study can be pinned down to two research questions:
3. What pedagogical and communicative functions does code-switching serve in the content subject lessons of the Hong Kong EMI schools?
4. Is there any difference in the code-switching patterns used by the teachers with student populations of different English proficiency levels? If yes, what are they? And what insights into classroom code-switching can the findings give?

The following section will summarize the different research paradigms, the development of educational research with special focus on classroom code-switching, and why a mixed method research paradigm is suitable for this research study.

### 4.2 RESEARCH PARADIGMS

### 4.2.1 THE POLARITIES OF RESEARCH PARADIGMS

With paradigm meaning the 'entire constellation of beliefs, values, techniques shared by members of a given scientific community' (Kuhn, 1970, p.75), researchers in the social and behavioral sciences can be divided into three groups: (a) quantitatively oriented researchers working within the positivist paradigm; (b) qualitative oriented researchers working within the interpretive paradigm; (c) multiple method researchers working within other paradigms (e.g. pragmatism) and interested in both quantitative and qualitative data.

During the first half of the twentieth century, the dominant methodology was positivist, which then went out of favor to some extent after the Second World War and increasingly replaced by the interpretative paradigm (Tashakkori and Teddlie, 2003). Many writers then wrote on the contrasting ways of looking at the world, of approaching knowledge and science and understanding man himself (Cohen et al, 2000). A summary of some of these differences is presented in the following paragraphs.

The positivist paradigm in social research takes a realistic stand in the ontology of social reality, i.e., social reality exists independently of the individual's perception; it is 'out there' in spite of how individuals look at it. On the other hand, the interpretive paradigm takes a 'nominal stand' on social reality, i.e., objects of thoughts are merely words and hence social reality cannot exist independently of an individual's perception. It is the individual perception that bestows meaning on a world and reality 'which are not objective and exterior, but that they are socially constructed and given
meaning by people' (Easterby-Smith et al, 1994, p.78).

Stemming from the view that there is an objective existence of reality, the positivist paradigm in research asserts that knowledge is hard, real and capable of being transmitted into numerical data and facts. Hence the way to approach knowledge in research should be empirical, that is, getting the reality through the five senses of the researcher as a hidden observer, and 'etic', that is, studying 'behavior as from outside of a particular system' with 'classifications based on prior broad sampling or surveys' (Pike,1967, p.37). Research methods are claimed to be value-free, that is, independent of human values and interests. The interpretive paradigm, on the other hand, holds that knowledge is soft, more subjective and experiential, not just accessible by reason alone, but also by feelings and intuitions of the individual. Hence the way to approach knowledge is 'emic', that is, 'culturally specific' and studying behavior 'from inside the system' (Pike, 1967, p.37), and getting to the inner perspective of the individuals under study, with the researcher being a participant in the same natural setting of the people he studies. Researchers in this model refute the view of value-freedom and assert that human interests and values actually guide the entire research process and the way knowledge is constructed (Denzin, 1989; Easterby-Smith et al, 1994).

The positivist paradigm takes a deterministic view of human nature, that is, human behavior and motives are determined by inner forces, like sexual urges, or outer forces, like social conditions, which are beyond the control of man himself. In this way, man can be studied mechanically as any other object in nature, and human behavior explained in terms of the causal relationships of natural laws. The interpretive paradigm, in contrast, believes that man is free to make his own choice and he is the
initiator of his own action. The social researcher's role is not to find out causal relationships, as human behavior is not subjected to them, but to understand more about man in his cultural context. The emphasis of study is on illumination, understanding and extrapolation, rather than causal determination, prediction and generalization as in the case of the positivist paradigm (Patton, 1990).

Burrell and Morgan (1979) describe the methodology used in the positivist paradigm as 'nomothetic', an approach characterized by procedures and methods designed to discover general laws, whereas that used in the interpretive paradigm is 'idiographic', emphasizing the particular and the individual. The common research designs used in the positivist paradigm would be experiment which manipulates and controls variables to establish causal relationships, large-scale surveys using probabilistic sampling to establish representation, and structured interviews with the findings often expressed in statistics and quantifiable data. Hence positivist research is often called quantitative research. The research designs used in the interpretive paradigm, on the other hand, would be fieldwork, participant observation, case studies, open-ended interviews, etc., with the findings often expressed in descriptions and reflecting multiple realities or perspectives perceived by different people in the same social setting. Hence interpretative research is often called qualitative research. The positivist paradigm often sets out to accept or reject hypotheses, whereas the interpretive paradigm makes extrapolations and develops hypotheses during the process of investigation. The former often employs deductive reasoning, to reason from the general to the particular, whereas the latter often employs inductive reasoning, to reason from the particular to the general (Glasser \& Strauss, 1967; 1992).

### 4.2.2 THE DEVELOPMENT OF EDUCATIONAL RESEARCH METHODOLOGY FOCUSING ON CLASSROOM CODE-SWITCHING

The positivist research paradigm had dominated social research in the first half of the twentieth century as described in the previous section. Educational research, as a newly risen social science discipline, was no exception. In the second volume of the Journal of Educational Sociology published in the 1920s in the United States, the editorial expressed the view that educational research must be experimental in order to become scientific (Bogdan and Biklen, 1992). Hence research on the classroom was often made up of quantified data of coded categories of teacher-student interactions. The most representative of such kind of research was the one done by Amidon and Flanders (1971), in which the observer in the classroom matched what he could make of the teachers' talk and students' talk into pre-set categories like 'lecturing', 'giving directions', 'pupil responses', and 'pupil initiations', etc. Such kind of quantitative research proliferated in the sixties and seventies, the objective of which was closely linked with microteaching and teacher training programs (Edwards and Westgate, 1994).

Similar methods of coding and quantifying language practice in the classroom were employed to investigate the effectiveness of bilingual education programs in the United States. Efforts were almost exclusively devoted to the amount of time a teacher taught in the students' first language and how much time in the second language, with a view to investigating if bilingual education would hamper the development of the students' native tongue. Examples of such quantitative research could be found in Legarreta's study (1977) on the percentage of language use in

Spanish and English in five Spanish bilingual kindergartens and Wong-Fillmore's study (1980) on the same topic of the amount of language use, but in a Cantonese and English bilingual program in kindergartens in the United States. Another research topic other than time allocation of language use is the functional value of the languages under study. Townsend (1974), for instance, studied the communicative dimension of Spanish and English using an adapted version of Flander's Interaction Analysis Categories, which again employed positivist and quantitative methodology.

However, the quantitative approach to code-switching classroom research received much criticism from people like Mehan (1979) and Payne and Cuff (1982). Mehan succinctly summarized his criticism on the quantitative approach as follows:

This approach minimizes the contribution of students, neglects the interrelationship of verbal to nonverbal behavior, obscures the contingent nature of interaction, and ignores the often multiple functions of language. (Mehan, 1979, p.14)

Payne and Cuff, in a more ironic tone, criticized the quantitative approach as 'simplifying and reducing the social world to manageable proportions yet still wanting to generalize about it in terms of the detail which it has had to jettison' (Payne and Cuff 1982, p.6, quoted in Edwards and Westgate 1994, p.96). In sum, these educators believe that classroom behavior is too complex and has too many hidden nuances of meaning to be capable of being tabulated in pre-coded categories of functions or labels. They reject the hard, scientific, or quantitative way of doing classroom research in favor of a more holistic, in-depth and emic way of investigation,
one that looks at the classroom situation in its totality and that uncovers the participants' own interpretation of the verbal or nonverbal behavior. The research tools in this interpretative approach would be first-hand participant observation and note taking, interviewing participants to get their views of looking at things, case studies, or analysis of diaries or relevant documents. The research product would be a 'thick description' (Geertz, 1973) of the everyday life in the classroom and the participants' perception of it. A classic example of this tradition is Heath's ten-year study of the difference in language socialization of working class children and of the mainstream schools and its negative effect on these children (Heath, 1983).

In classroom code-switching studies, researchers also moved away from the quantitative method used in earlier studies to the qualitative approach. Adendorff (1996), by detailed analysis of the recordings made of verbal activities on entire lessons in an English lesson, biology lesson and geography lesson in a Kwazulu high school, showed that the functions of code switching in the classroom serve complex functions of gaining credibility, encouraging students, marking frames, asserting authority and building relationships, etc. on the part of the teachers, functions which would have been too complex for pre-coded categorization as in the earlier quantitative studies. Lin (1993) carried out a similar study in the Hong Kong context. Also by recording, and this time the English lessons of four teachers in four different secondary schools in Hong Kong during one teaching cycle, and through careful analysis with special reference to the teachers' alternation between English and Cantonese, Lin showed that code-switching in the classroom is not random, but is communicatively meaningful. In both studies, the researcher is absent from the classroom to reduce the possible observer's effect on the teacher and the students, and
analysis of the language alternation is carried out not in isolation, but with reference to the context of the speech output, that is, what is said before and after the code-switch, and the wider context of the power distribution of the teacher and students and the society at large. The analysis, actually, is so complex that it would have been practically inconceivable to carry it out with a quantitative study of pre-coded classification of the speech events.

### 4.2.3 THE EMERGENCE OF THE MULTIPLE METHOD

## RESEARCH PARADIGM

The second half of the twentieth century saw an increasing growth in popularity in the interpretive paradigm in education research, which was thought to be superior over the positivist research paradigm (see 4.2.2). 'Paradigm wars' broke out when researchers believed that compatibility between the two paradigms were impossible. It was during the last decade of the twentieth century that the 'compatibility thesis' emerged (Guba \& Lincoln 1994; Tashakkori and Teddlie, 2003). The compatibility thesis asserted that the quantitative and qualitative research methodologies could actually be used together, and as a result, Multiple Method Design was established as a separate field in research.

Tashakkori and Teddlie (2003) devised the following typology for Multiple Method Design, which is defined as research in which more than one method or more than one worldview is used: (a) multimethod designs: more than one method but restricted to one worldview, either multimethod quantitative studies (e.g., survey and close-ended
interviews) or multimethod qualitative studies (e.g., participant observation and case study); (b) Mixed methods (plural) designs: a cover term for the use of both qualitative and quantitative data collection procedures or research methods. It is further divided into mixed method (singular) research when mixing occurs in the methods selection of a study (e.g., an ethnography and a field experiment); and mixed model research when mixing occurs in many or all stages of a study. The main difference between the mixed method design and the mixed model design is that the former is often marginally mixed in that they are frequently either qualitative or quantitative in the type of questions they ask and the type of inferences they make at the end of the studies, whereas the latter often have multiple research questions each rooted in a distinct paradigm, and make multiple inferences corresponding to different worldviews.

Johnson and Turner (2003) classifies mixed methods design into intramethod and intermethod mixing. Intramethod mixing is the use of a single method that includes both qualitative and quantitative components or approaches (e.g., the use of both open and close items on a single questionnaire). It has also been called 'data triangulation' (Denzin 1989). Intermethod mixing is the use of different methods in a single study. These various methods can reflect only quantitative approaches, only qualitative approaches, only mixed approaches, or a combination of qualitative and quantitative methods. It has also been called 'method triangulation' (Denzin 1989). When compared to Tashakkori and Teddlie's model, I think that Johnson and Turner's model is more method-orientated, whereas Tashakkori and Teddlie's model is more paradigm-orientated. For this research study, I will adhere to Tashakkori and Teddlie's model.

The advantage of using mixed methods research design is that it can answer research questions that the other methodologies cannot answer. Traditionally it is believed that qualitative approach is used to answer exploratory research questions, while quantitative approach is used to answer confirmatory research questions. However, mixed methods researchers disagree to this dichotomization, and assert that 'there is no necessary connection between purpose and approach. That is, quantitative research can be used for theory generation (as well as verification), and qualitative research can be used for theory verification (as well as generation)' (Punch 1998, pp.16-17, quoted in Tashakkori and Teddlie 2003, p.15). Mixed methods research therefore enables the researchers to verify and generate theory in the same study.

Another advantage of using mixed methods research is that it provides better and stronger inferences. Hunter and Brewer (2003) defined mixed method strategy as 'the use of multiple methods with complementary strengths and different weaknesses in relation to a given set of research problems'. Fieldwork allows emic, intensive study of certain naturalistic settings, but it leads to questions about the representativeness of findings, and its small scale precludes some statistical modes of causal analysis. Survey research promises high generalizability, but it leaves little room for maneuvering into areas of social life which respondents are unwilling to respond. Experimentation promises clear causal inferences, but at the expense of realism and generalizability to nonexperimental populations and situations. Nonreactive research like archive study promises freedom from reactive sources of error; it however rules out flexibility, generalization and control over the conditions of causal inferences that the other methods allow. While no method can achieve the desired goals of realism, generalizability, accurate inference and freedom from reactive error, mixed methods
research is useful to combine methods that have different but complementary strengths. For example, survey research can contribute to fieldwork by helping to establish the generality of field observations; and fieldwork may likewise cross-check a survey's accuracy by means of informant interviews (Brewer and Hunter 1989). The combination of methods therefore provides stronger inferences.

The third advantage of mixed methods research is that it provides divergent views, which can make clear the multiple aspects of a phenomenon. Whether the results converge or diverge, it provides greater validity or falsification of previous assumptions. It very often provides the multiple voices of a social phenomenon under study.

Tashakkori and Teddlie (2003) have succinctly summarized the paradigmatic foundation of mixed methods research into four stances: (1) a-paradigmatic thesis: methods and paradigms are independent of each other and therefore it is permissible to do mixed method research; (2) incompatibility thesis: mixed methods research is not possible because the research paradigms of quantitative and qualitative research are not compatible; (3) complementary strength thesis: mixed method research is possible but they must be kept separate for keeping their complementary strength; (4) a single paradigm should serve as the foundation: e.g., pragmatism, which is a commonly used paradigmatic foundation for mixed methods research.

Pragmatism as the foundation of mixed methods research asserts that the research question is more important than the methods used or the paradigm underlying the
methods; it embraces both the positivist and interpretative worldviews; it regards that the choice of methods depend on the research question as it is currently posed; it rejects the use of metaphysical language and presents a very practical applied research philosophy (Tashakkori and Teddlie 2003). This research study also subscribes to pragmatism as the foundation of mixed methods research.

### 4.2.4 THE RESEARCH PARADIGM SUITABLE TO THE PRESENT STUDY

The first research question of this study was to find out the functions of code-switching in the content subject classroom in Hong Kong. This entailed a fine-grained contextual study of classroom language in the content subject lessons of EMI schools in its natural entirety. Quantitative research designs like large-scale surveys would have missed the detail, subtleties and nuances of meaning involved in language functions in discourse. Instead, non-participatory observation associated with the qualitative research paradigm, which focuses on how interaction occurs and unfolds moment by moment in the classroom was thought to be a fitting tool to achieve the purpose.

The second research question of this research project was to find out correlation between the micro-linguistic properties of code-switching used in classroom instruction and the English proficiency of the student populations under study. Its nature is exploratory instead of confirmatory. To answer this question, comparative analysis needed to be made across the student population of different levels of English proficiency. The non-random sampling method and the exploratory nature of the
research question definitely reflected a qualitative approach. However, in establishing the correlation between the linguistic properties of code-switching and the English proficiency of the student populations, some quantitative counts based on a pre-coded table on the different syntactic properties of the switched segments or switch sites had to be made, and this kind of data analysis was associated with the quantitative research paradigm. The validity (or inference quality in the mixed methods paradigm) of the correlations established was then to be strengthened by the qualitative method of open-ended interviews with the teachers and students who participated in the lessons under study. Hence while the data collection procedure reflected a qualitative approach (non-random sampling), the data analysis procedure was both qualitative ( non-participatory observation of the classroom talk) and quantitative (quantification of the classroom talk data into pre-coded categories of the different linguistic properties of the switched segments). And the fact that this was subsequently followed by another purely qualitative methodology of open-ended interview warranted the research paradigm of a mixed method design described above.

The inference made on the findings on the correlation between the linguistic properties of code-switch and the students' English proficiency was exploratory and extrapolative, basing on the data collected from a limited non-random sample. It was the building of hypothesis from empirical data collected using inductive reasoning from the particular to the general. Hence it was interpretative and qualitative in nature, rather than positivist and quantitative.

In sum, the natures of the two research questions were all interpretive and qualitative. So were the methods of collecting data and references or hypothesis made from the
data. However, as the method of data analysis involved both qualitative and quantitative approaches, and there were different qualitative methods used (non-participatory observation and open-ended interviews), the overall research paradigm was one of mixed method design described above. It was mixed method design and not multimethod design because both qualitative and quantitative approaches/worldviews were used in the same method. It was mixed method design and not mixed model design because it was marginally mixed (predominately qualitative in the research questions asked and the inferences made), instead of being mixed at many or all stages as in the mixed model design.

Having clarified the research paradigm, the next section concerns the actual methods of investigation and the difficulties encountered.

### 4.3 METHODS OF INVESTIGATION

As this study is a mixed method design using an observation method and an interview method, I will first of all describe the sampling, data collection and data analysis of the observation method in 4.3.1, 4.3.2 and 4.3.3 before describing the procedures of the interview method in 4.3.4, and the difficulties encountered in 4.3.5.

### 4.3.1 SAMPLING OF THE OBSERVATION METHOD

In order to compare the use of code-switching across schools of different levels of English proficiency, the purposive sampling method was adopted. Stratified
purposive sampling selects cases at defined points of variation in the phenomenon under study based on the researcher's knowledge of a population, which facilitates comparison. It ensures the proper representation of the stratification variables (Patton 1990; Babbie 2002). In this case, the stratification variable was the English proficiency level of the student populations in different schools. The knowledge of the English standard of EMI schools territory-wide was provided by the Education and Manpower Bureau of the Hong Kong Government measured by the English Subject Group Percentile Results of the student intakes every year. Based on this knowledge, three secondary schools of high, medium and low Form One students' English proficiency were sampled (see Appendix 4). In each sampled school, one lesson of Form One geography, history, and Economics \& Public Affairs (EPA) were respectively tape-recorded in the absence of the researcher in the classroom. The reason why content subject lessons instead of English lessons were chosen is that the language policy debate in Hong Kong is not whether English should be taught in English, but whether content subjects should be taught in only English, that is, the issue of medium of instruction, not the issue of English language teaching. The reason why these three subjects were chosen is that these are language-laden subjects, which, unlike science or mathematics, require a lot of language use on the part of the teachers and students, and therefore should provide more data for the study of code-switching.

### 4.3.2 DATA COLLECTION OF THE OBSERVATION METHOD

The sampled lessons were audio-taped in their entirety. A small tape-recorder was put on the teacher's desk to record all the speech events that took place in the classroom. Hence the method of data collection in this research was by means of observation
with the researcher being a complete observer and totally removed from the scene. Objectivity has been valued by traditional social sciences. Researcher's detachment or non-intervention has been central to many studies using the observation method (Angrosino and Mays de Perez, 2000). Although the absence of the researcher from the classroom would miss the non-verbal communication in the classroom interaction, it had the advantage of reducing observer reactivity, a situation where subjects act as they think the researcher wants them to (Denzin,1989; Allwright \& Bailey, 1991). When the researcher/observer was absent from the classroom in this case, the effect of the awareness of the lesson being part of a study was reduced, although they might still change their language behavior when they were told that the lesson was to be recorded for a study on the medium of instruction (this issue would be dealt with in section 4.3.5). Moreover, as the non-verbal behavior of the classroom interaction was not the theme of enquiry in this research, the researcher opted for reducing observer reactivity while sacrificing the non-verbal aspect of the interaction although this was a difficult choice to make.

### 4.3.3 DATA ANALYSIS OF THE OBSERVATION METHOD

This section is a description of the qualitative analysis by Conversation Analysis as well as the quantitative analysis by pre-coded categorizations of the data collected from the classrooms of the sampled schools.

### 4.3.3.1 Qualitative Analysis Using the Tool of Conversation Analysis

The recordings were replayed and the entire lessons were transcribed (see appendix 5),
and then analyzed in a detailed, line-by-line and fine-grained manner to identify the functions of code-switching served in each particular lesson. Categories of functions were developed during the analysis rather than systematically formulated prior to the analysis. The tool used to study the natural sequential flow of talk of both the teacher and students was Conversational Analysis. The following is a brief account on the concepts and techniques used in Conversation Analysis.

The Concepts and Techniques of Conversation Analysis

Conversation analysis was first developed by Sacks in the nineteen-sixties when he studied recorded telephone calls made to the Suicide Research Centre in Los Angeles. He and his collaborators concluded that the mundane world of talk in interaction deserved to be examined closely in its own right, and that it was systematically organized and ordered:

We have proceeded under the assumption (an assumption borne out by our research) that in so far as the materials we worked with exhibited orderliness, they did so not only to us, indeed not in the first place for us, but for the co-participants who had produced them.
(Schegloff and Sacks 1973, p.290, quoted in Atkinson and Heritage 1984, p.2).

In their study on the organization of turn-taking in conversation, Sacks and his collaborators outlined regularities in the subject. The turn-constructional component and turn-allocation component have been identified in the system of turn-taking. The turn-constructional components are the unit-types with which a speaker constructs a turn, and can be sentential, clausal, phrasal, and lexical constructions. The
turn-allocation component consists of two groups: those in which a next turn is allocated by the current speaker's selecting the next speaker, or those in which a next turn is allocated by self-selection. The rules of turn-taking are, for example, overwhelmingly, one party talks at a time; also common are transitions (from one turn to a next) with no gap and no overlap. Together with transitions characterized by slight gaps or slight overlaps, they make up the vast majority of transitions. Repair mechanisms exists for dealing with turn-taking errors and violations, e.g., if two parties find themselves talking at the same time, one of them will stop prematurely, thus repairing the trouble (Sacks et al, 1974).

Sacks and his collaborators claimed that conversation analysis displayed the twin characteristics of being context-free and context-dependent. Being context-free means that ethnographic data such as socioeconomic status, gender, biographies of the participants in the conversation are not used a-priori to explain how the conversation is constructed and made sense of, unless there is internal evidence in the conversation to provide a warrant for the introduction of such data. However, conversational analysis is context-dependent at the same time, with context meaning 'the immediate sequential environment of a turn' (Markee 2000, p.28), because it is the yardstick with which participants judge whether the talk produced in the next turn is appropriate or not. For the first time in the study of social interaction, the 'adjacency pairs' were identified as the focus of study. The adjacency pairs are the sequential structures in which two persons are involved in interaction, one speaker speaking first and the other next, in close temporal order and in immediate turns (Psathas 1995). They are important because what the first speaker says will constrain what the second will say. These adjacency pairs provide the context of conversation analysis, which is considered fluid and contingent (Wooffit 2005), and should be studied in detail in
their own right.

Because conversation analysis does not use outside or background information other than what is found in the talk in interaction, the approach used is 'emic' rather than 'etic'. Pre-coded categories are considered 'reductionistic' in limiting the totality of the data in conversation to a finite set of notated observables. They are regarded as quantitatively biased as they ignore the local context in favor of frequency counts (Psathas, 1995).

The primary data for conversation analytical research are audio (and, where necessary or appropriate, video) recordings of naturally occurring interaction. Such recorded data enables repeated and detailed examination of the moment-by-moment enfolding of the interactions under study. The recorded data are then transcribed in detail with particular focus on the properties of turn-taking, such as the onset of simultaneous speech and the timing of gaps within and between turns, and also the features of the production of talk, such as emphasis, volume, the speed of delivery and the sound stretching (Woffitt, 2005). The transcripts are then analyzed in detail to find out prototypical examples of a particular phenomenon, using text-internal, convergent evidence to establish the credulity of the analysis. This is also known as text-internal triangulation (Markee, 2000). The researcher then encourage others to replicate initial findings with different source of data, or to find out further phenomena to reveal the complexities and diversities of the original phenomenon.

Conversation Analysis has often been criticized as using terminology such as 'adjacency pairs', 'repair', etc. which does not reflect the participants' own terms, but actually reflects a distinctive view of social order - one in which participants have
equal status and power, which nevertheless cannot accommodate the real world of injustice and inequalities ( Wooffitt, 2005). In response to these criticisms, Schegloff (1999) asserts that although the terminology used does not reflect the participants' own terms, it nevertheless seeks to offer accounts of interaction which are justified by referring to the ways in which participants display what they take to be relevant to their on-going interaction. And he argues that the account of interaction offered by conversation analysis 'does not assume an equalitarian society, but it allows for one' (Schegloff, 1999, p.564). Actually, there are numerous conversation analyses of the sequential underpinning of argumentative talk, and the area of study in conversation analysis can be the interaction between unequal power relations in institutions such as the court, the hospital and the classroom. This justifies the application of conversation analysis in classroom language alternation.

The concepts and techniques of conversation analysis have been gradually applied in the study of classroom interaction, for example, Mehan 1979 and Allwright 1980. Besides, they are also found to be useful in the study of language alternation. Auer (1984), for example, draws on the methods of conversation analysis to establish prototypes of language alternation. Lin (1990; 2001) also uses this approach to study the phenomenon of language alternation in the English language classrooms in Hong Kong. In this thesis, conversation analysis is used to study the functions of code-switching in the content subject classrooms in Hong Kong.

### 4.3.3.2 Quantitative Analysis

To answer the second research question of whether there is any difference in the
code-switching patterns used by teachers with student populations of different English proficiency levels in the content subject lessons in EMI schools in Hong Kong, the collected data was tabulated into pre-coded categories on (a) the language distribution (English, Cantonese, Code-switch of English and Cantonese); (b) the pattern of code-switching: single word or single phrase translation, tags (OK, all right); intra-sentential switch and inter-sentential switch; (c) sites of switch in intra-sentential switch: word-level switch (noun, adjective, verb), phrase-level switch and clause-level switch in sentences with English as the Matrix Code; and word-level switch (noun, adjective, verb), phrase-level switch and clause-level switch in sentences with Cantonese as the Matrix Code. The Matrix Code refers to the base language as defined by the language that starts the sentence and that which constitutes the major part of the sentence, into which the Embedded Code is inserted (Kamwangamalu, 1989).

The origin of the pre-coded categorization is partly externally derived and partly self-derived. The demarcation of intra-sentential and inter-sentential code-switching is based on Romain (1995) and Macswan (2004), with the former referring to switching below the sentential boundaries and the latter, beyond the sentential boundaries. For the pattern of teachers' code-switching, I added single word or phrase translation and tags (i.e., $O K$ and all right) because these are small semantic segments commonly found in switched items in the data and also among HK bilinguals in general, which can neither be assigned to the inter-sentential or intra-sentential items. For the sites of switch, I used sub-categorization of word, phrase and clause to describe the linguistic properties of the switched segments in the intra-sentential code-switches because these are the basic syntactic categories of a sentence. The word-level switch is further
subdivided into the grammatical categories of noun, adjective and verb because these are the most commonly found switched items among of Hong Kong bilinguals (Gibbons, 1987; Chan, 1993).

The following is a summary of the examples of each type of code-switching taken from the corpus collected from the sampled schools or individual bilingual speakers.

- Word / phrase translation:
e.g., Do you know what is community center? Sehkui jongsam. Yes. (School B, Geography )

Here the phrase 'community center' is translated into Cantonese by the students upon the teacher's checking of understanding.

- Tags:
e.g., OK, neih yauh-mouh heui-gwo Tongchung a? (School B, Geography) OK, have you ever been to Tungchung?

Here the English adverb ' OK ' is tagged on the Cantonese sentence at the front position.
e.g., Sikdong ge jih, alright? (School B, EPA 2)

Appropriate word, alright?

Here the English adverb 'alright' is tagged on the Cantonese sentence at the end position.

- Intra-sentential switch at word-level (with Cantonese as Matrix Code):
e.g., gaaotong hou-faahnmohng, qic hou-do, gam haih-mhaih yat-go problem ne? (School B, Geography)
traffic is busy; cars are many - then is this a problem?

In this sentence, the English word 'problem' is inserted in a Cantonese sentence, hence it is switching within a sentence at word level with Cantonese as the Matrix Code.

- Intra-sentential switch at phrase-level (with Cantonese as Matrix Code): e.g., Neih mouh-se two A or two B (School B, Geography) You didn't write two $A$ or two $B$.

Here the English phrase 'two A or two B' is inserted into a Cantonese sentence, hence it is intra-sentential switching at phrase-level with Cantonese as the Matrix Code.

- Intra-sentential switch at clause-level (Cantonese as Matrix Code):
e.g., Matyeh giu-jouh 'it is not good to live' jek? (School B, Geography)

What do you mean by 'it is not good to live', eh?

Here the English clause 'it is not good to live' is inserted into the Cantonese sentence.

- Intra-sentential switch at word level (English as Matrix Code):
e.g., What is faahnlaahm in English? (School B, History 2)

What is flooding in English?

Here the Cantonese word meaning 'flooding' is inserted into the English sentence, hence it is switching within a sentence with English as the Matrix Code.

- Intra-sentential switch at phrase level (English as Matrix Code):
e.g., Longitude should be the...waahng dihng dohng a? (School B, Geography)


## Longitude should be horizontal or vertical?

Here the Cantonese phrase equivalent to 'horizontal or vertical' is inserted to an English sentence.

- Intra-sentential switch at clause level (English as Matrix Code):
e.g, I think it's the right decision in that ngoh yau-dak keuihdeih wohhup la.
( My own production)

I think it's the right decision in that I let them mix together.

Here the Cantonese clause equivalent to 'I let them mix together' is inserted in an English sentence, hence intra-sentential switch at clause level with English as the Matrix Code.

- Inter-sentential code-switch:
e.g., You don't know? Syu neuih-bin mouh gin-gwo ni-go jih me?

You don't know? Haven't you seen this word from the book?

Here the switching takes place between an English sentence and a Cantonese sentence; hence it is inter-sentential code-switching.

To find out the time of the language distribution of the sampled lessons, I played the recordings first for transcription. Then, with the help of the transcriptions, I replayed the recordings, this time using three stopwatches which recorded the time spent on using English, Cantonese and code-switches (both intra-sentential and inter-sentential) respectively. When measuring the time spent on inter-sentential switches, I counted the time in between the beginning of the segment in language $A$ and the end of the segment in the switched language $B$. The number of incidences of different patterns of code-switching were also counted and tabulated (see Chapter Six). When counting the incidences of inter-sentential switches, I counted the number of incidences language switch took place. For example, if one Cantonese independent clause was inserted in between two English independent clauses, then the incidence of inter-sentential switch was regarded as two, because the switch in language occurred twice. Similarly, if several Cantonese independent clauses were inserted in between two English independent clauses, the incidence of inter-sentential switch was still two, because the switch in language occurred twice in spite of the numerous Cantonese independent clauses that clustered together in between the two switches. The various patterns of the use of code-switching at different English levels in the three schools were then tabulated and compared. The findings after comparisons are reported in Chapter Six.

### 4.3.4. PROCEDURE OF THE INTERVIEW METHOD

Immediately after the data of the study had been collected by the observation method using audio recording, the interview method was carried out. The teacher and a student from each of the classes audio-taped were asked to attend a semi-structured interview in which their opinions on code-switching were collected. They were asked to: (1) state their attitudes towards code-switching in general; (2) give their preference for having an all-English lesson or a mixed-language lesson and the reasons accounting for the preference; (3) comment on the communicative and pedagogical functions of code-switching; (4) state the preferred type of code-switching used in the classroom as regards English language acquisition, that is, whether intra-sentential or inter-sentential switching would help in learning English; (5) give reasons that account for the preference; (6) their education background. Their opinions were then compared to the findings obtained from those obtained from observation. The research questions are put in Appendix 6 and the interview results are presented in Chapter Six.

### 4.3.5 DIFFICULTIES ENCOUNTERED AND THE SUBSEQUENT SOLUTIONS

Although the above descriptions were the intended methods in sampling, data collection and data analysis, in the actual procedures of carrying out these methods, I encountered some difficulties which subsequently led to the modification of sampling and data collection.

First, it was very difficult to gain entry to schools of different English standards. In this decade, there has been a lot of research going on regarding classroom language in Hong Kong and therefore, teachers seem to have adopted a very lukewarm and uncooperative attitude towards participating in research. Once, even though the principal of a certain school gave me the permission, the teachers turned me down and hence I was not able to get data from that school. After a lot of attempts, I ended up soliciting the cooperation of three schools: all Christian schools, one being the top batch as far as English standard is concerned, the other two being the medium and medium-low. After data collection and analysis, I found that the findings were not discriminatory enough to show the differential code-switching patterns between the school with medium English standard and the school with medium-low English standard. This was most probably due to the close English standard of the student populations of the two schools. In order to get data from a school of really low English standard, I decided to target a Chinese medium school with one content subject taught in English. My decision was based on the fact that given the limited number of EMI schools in Hong Kong (114 in all), even the students from an EMI school of low English standard would not be very low and hence it was difficult to find a school with discriminatory power. On the other hand, there are some CMI (Chinese Medium Instruction) schools that teach one or two subjects in English in Form Four or above. Hence I finally managed to replace the original EMI School C with a CMI school, with the subject under study being Form Four Accounting, instead of Form One history, geography and EPA, because they use English textbooks to teach Accounting and their students will have to attend a public examination on Accounting in English.

Another difficulty in the data collection process was that both School A and School B
teachers only taped a very short section of their lessons for me at the first visit. One lesson taped was as short as 15 minutes out of a standard 35 minute-lesson. And in both schools, there was hardly any code-switching used by the teachers at all. As I believed that the students' English standard in School B was not good enough to understand the entire lessons in English, I suspected that the teachers in School B might have behaved differently because of the awareness of their lessons being part of a research on medium of instruction, which I told them upon the first visit, and the medium of instruction in their schools should be English as stipulated by the Government. Hence, I made a second visit to School A and School B. I asked them to tape another lesson for me. And I specified that my research topic was on how teachers can use Cantonese to help their students to learn a content subject taught in English. This time I got more code-switching data from School B than before, with the language pattern in School A fairly much the same, that is, all-English, as expected. One minor accident in School A was that the geography teacher forgot to switch on the tape-recorder while he was giving his lesson and so I just got a blank tape from him. But as I had already got 21 minutes of recording on Geography lesson in my first visit in School A and 47 minutes in School B, I didn't think I needed to make a third visit. Therefore the data collected from both School A and B was history 1, history 2, and EPA1, EPA 2, but only geography (without 1 and 2). From School C, it was only accounting. The following table shows how much data from what classrooms was collected from each school.

Table 1: Data Collected from the Three Schools

| School | Classroom | Data collected <br> (taped time) | Data collected <br> (no. of switches) |
| :---: | :---: | :---: | :---: |
| School A | History 1 | 20'23" | 4 |
|  | History 2 | 17'38' | 11 |
|  | Geography | 21'57" | 0 |
|  | Economics \& Public Affairs <br> (EPA 1) | 39'58' | 2 |
|  | EPA 2 | 26'54" | 0 |
|  | Total | 2hrs. 6'50' | 17 |
| School B | History 1 | 18'37' | 2 |
|  | History 2 | 25'20" | 42 |
|  | Geography | 47'7 | 85 |
|  | EPA 1 | 15'2' | 6 |
|  | EPA 2 | 13'44" | 91 |
|  | Total | 1hr. 59'50' | 226 |
| School C | Accounting | 1hr. 58'36' | , 1350 |
|  | Total | 1hr. 58'36' | , 1350 |
| School A + B + C | Total | $6 \mathrm{hrs}. 5^{\prime} 16^{\prime \prime}$ | $\cdots 1593$ |

Whether the adjustments made about sampling and data collection would affect the inference quality of the research findings will be discussed in chapter five.

### 4.4. DRAWING INFERENCES IN MIXED METHODS RESEARCH

### 4.4.1 DEFINITION OF INFERENCES, INFERENCE QUALITY \& INFERENCE TRANSFERABILITY IN MIXED METHODS RESEARCH

It has been proposed that in mixed methods research, there should be a clean break away from the concepts of validity associated with quantitative research, and of credibility, trustworthiness and transferability associated with qualitative research. As a result, terminologies like inferences, inference quality and inference transferability have been brought into the nomenclature of mixed methods research. This section is devoted to the definition and discussion of these concepts in relation to different research paradigms.

Internal validity associated with quantitative research has been defined as the extent to which 'scientific researchers actually observe or measure what they think they are observing or measuring' (LeCompte and Goetz, 1982, p.43). It refers to 'the soundness of an explanation, that is, the appropriateness of the measuring instruments and the soundness of the research design' (Sapsford and Evans,1984, p.260). It is 'for establishing a causal relationship, whereby certain conditions are shown to lead to other conditions (Yin, 1994, p.143). There are writers who reject outright the application of the criteria of validity to qualitative research methods. Lather (1993) talks about the inadequacy of validity in an age when there is a crisis of authority in all knowledge systems. Scheurich (1994, p.11; quoted in Norris, 1997, p.173) repudiates the 'imperialism of validity' when it is used as the only yardstick to accept or reject
research. This concept is similar to Lancy's post-positivist stand on the multiplicity of perspectives (Lancy 1993). Guba and Lincoln (1989) argue that internal validity, as an assessment of the degree of 'isomorphism between a study's findings and the real world', is meaningless in the interpretive paradigm in which reality only exists in the individual's subjective interpretation of it. Scholars opt for criteria which are meaningful for the interpretive paradigm such as credibility (Lincoln \& Guba 1985 ;McMillan 1996), which is defined as the extent to which the data, data analysis and conclusions are believable and trustworthy. It is established by prolonged engagement and persistent observation; triangulation of sources, methods and investigators; peer debriefing, member checks, etc. Triangulation is originally a maritime term for the endeavor of pinpointing a single spot or object by using more than one location marker. For illuminating a complex social issue, different research methods may be employed, or the same method employed to different data sources, which enables one to look at the same issue from different angles, and the validity of the findings, when converging in different methods, will be much increased (Denzin 1989; Cohen et.al.2000). Triangulation is closely related to the concepts of mixed method design (Johnson and Turner 2003) as described in 4.2.3.

When it comes to external validity (i.e. 'to what extent are the abstract constructs and postulates generated, refined or tested by scientific researchers applicable across groups' (Lecompte and Goetz, 1982, p.43), or simply, the generalizability of findings), qualitative research methods again score low due to the idiosyncratic and context specific nature of observation or interview. Goetz and Lecompte suggest that to bolster the external validity of qualitative research, the characteristics of phenomena salient for comparison with other similar groups have to be carefully described and
identified, so that the typicality or atypicality of the case under study can be established, and the findings can be generalized. Similar ideas are found in the idea of 'transferability' (Lincoln and Guba 1985; Erickson1986), the extent of which can be determined by readers by thick description. In a similar vein of argument, Bassey (1984) states that the 'relatability' of an interpretive study is more important than its generalizability. And Stenhouse (1978) uses the term 'retrospective generalization' as distinctive from 'predictive generalization', whereby findings of the interpretive studies are for strengthening the individual judgment about similar occasions instead of making predictions about them.

In the nomenclature of mixed methods research, the term 'inference' has been proposed as an umbrella term that refers to the final outcome of a study (Tashakkori \& Teddlie, Erzberger \& Kelle 2003). 'To infer' has both the quantitative connotation of 'to cause' and the qualitative connotation of 'to induce'. Similarly, 'inference quality' has been proposed to replace both 'internal validity' in quantitative research and 'credibility' in qualitative research. It means the accuracy with which conclusions were derived inductively (as in qualitative research) and deductively (as in quantitative research) from a study. 'Inference transferability' is used as an umbrella term to cover the concept of external validity associated with quantitative research and transferability with qualitative research. It involves how far the conclusions can be extrapolated beyond the particular conditions of the research study to other contexts or other time periods.

The reasons for replacing traditional quantitative and qualitative terms are twofold. First, it is believed that mixed methods researchers should adopt a common nomenclature,
and this system should transcend the traditional terms of validity and credibility when these are used to describe similar procedures. These procedures are similar because both internal validity and credibility refer to the yardstick whereby a researcher determines to what extent the outcome of the study accurately describes what has actually happened. Similarly, the concepts of external validity and transferability are similar because both processes involve the extent to which the conclusions may be extrapolated beyond the conditions of the research study. Second, these mixed methods terms have not been overused and hence lost their distinctive meaningfulness as in, for example, 'validity', which has developed into 35 types of validity (Tashakkori \& Teddlie, 2003, p. 13).

### 4.4.2 EVALUATION OF INFERENCE QUALITY AND INFERENCE TRANSFERABILITY IN MIXED METHODS RESEARCH

To evaluate the inference quality of research, Tashakkori and Teddlie (2003) propose four evaluation dimensions: (a) within-design consistency, which involves questions like: whether the design is consistent with the research questions; whether the data analysis are appropriate to provide answers to the research questions; whether the results happen the way the researcher claim they did; whether the inferences are consistent with the results of the data analysis; whether the inferences obtained are consistent with the corresponding research questions. (b) conceptual consistency, which involves questions like whether the inferences are consistent with each other and with the known state of knowledge; (c) interpretive consistency, which involves questions like whether other scholars agree that the inferences are the most defensible interpretation of the results, and whether the interpretations are consistent with
participants' construction of reality; (d) interpretive distinctiveness, which involves questions like whether the inferences are distinctively different from other possible interpretations of the results.

For the yardstick of inference transferability, the same authors suggest that it is relative. No research inference in social and behavioral sciences is fully transferable to all settings, populations or time periods. However, any inference has some degree of transferability to other settings, populations or times.

Another model of measuring the inference quality of mixed methods research is proposed by Johnson and Turner (2003). In this model, if qualitative and quantitative methods are combined to answer a specific research question, then the possible outcomes of the research may either converge, supplement each other, or contradict each other. Convergence of research results may provide good arguments for their validity, but can never fully prove this validity, for it is always possible that all the convergent results are biased for the same reason and in the same direction.

### 4.5 ETHICAL ISSUES

In conducting the observation study in the classroom, I obtained the consent from the principal of the school and the teachers whose lesson I recorded. However, the students were not informed of the study, let alone their parents. Here there is the ethical issue of infringing the participants' right to 'informed consent' to the research (Hitchcock and Hughes 1989; Berger and Patchner 1994; Howe 2001). When the students or their
parents know that the lesson has been taped, they may have objections to it. Yet this is something over which I have no control because the principals of the schools said there was no need to inform the parents, and the teachers felt no need to inform the students, because the recording was mainly done on them, not on their students. I can only say that I have a clear conscience to carry out the research because ethics can be culture-bound. In an oriental culture, the principals and the teachers can make decisions for the students when they see themselves as doing something in the students' interest. This is in line with the concept of 'ethical relativism' as expressed by Denzin:

I disagree with those who suggest that the sociologist has no right to observe those who have not given their consent. I suggest that sociologists have the right to make observations on anyone in any setting to the extent that they do so for scientific purposes. The goal of any science is not harm to subjects, but the advancement of knowledge. (Denzin 1989, p.257).

The ethical issue of confidentiality is more easily observed in this research. All the groups and individuals under study are kept anonymous, including names of schools, names of teachers whose lessons were recorded, names of teachers and students interviewed. Even when the background and particularities of these subjects are described in detail, there is no way to trace back who they are. Therefore their privacy has been protected (Strike 1990, in Cohen et al.2000; Berger \& Patchner 1994; Howe 2001).

The broader ethical issue involves the issue of accountability. Denzin (1989) asserts that ethics and values are issues that researchers have to face all the time. There is no
value-free social research and hence the question is not whether we take sides, but whose side we are on. Lincoln) echoes a similar view in that researchers should 'come clean' about their own stances because 'detachment and author objectivity' become 'barriers to quality, not insurance of having achieved it' (Lincoln,1995, p.280, quoted in Lather, 2001, p.245) . Lather (2001) elaborates that epistemology is actually an ethical issue because whose data the researcher collects actually reflects the stance he takes. The use of multiple voices, especially the marginalized voices, in the process of data collection in research is a way of fostering social justice. Silverman (1985) delineates the three sociological identities that the social researcher can take on: the scholar who does research for knowledge sake, the State counselor, for the policy-maker, and the partisan, for political parties. This model very relevant for the issue of the medium of instruction in Hong Kong, as researchers take a stand either for the Government's education reform, or against it. Local Hong Kong academics and educators seldom take a scholastic stand that is research-based and knowledge-driven, perhaps due to the fact that the medium of instruction is a very political issue in the Hong Kong education scenario that has to do with allocation of resources and distribution of power. In the present research, I try to take the scholar's identity, which is natural and appropriate for somebody who has left the teaching profession in Hong Kong for almost ten years. And as I am not affiliated to any Government department, or any educational institution, or political party in Hong Kong, I have the advantage of being comparatively neutral. And I have no intention of using my research findings to speak for the Government or against it. Nevertheless, how my research findings will be used is quite a different issue over which I have no control at this moment.

### 4.6 CONCLUSION TO CHAPTER FOUR

The purpose of this research undertaking is to gain understanding, to formulate hypotheses and to make suggestions about code-switching in the Hong Kong classroom. The hypotheses will give insights to the pedagogical issue of whether code-switching should be used in English-medium schools in Hong Kong, and how it should be used. So both the research questions and the inferences made are qualitative and interpretive. However, a quantitative approach is used in calculating and tabulating frequencies in the data analysis process, and also different qualitative methods are employed consequentially. The overall research method is a mixed methods design. Although no causal relationship can be established about patterns of code-switching of the teachers and the English proficiency of the student population, the validity of the findings can be bolstered by intramethod mixing, or data triangulation of seeking data sources from different settings, that is, three different schools of student population of different levels of English proficiency, and also intermethod mixing, or methodological triangulation of using the interview method besides the observation method. As regards accountability, the researcher is trying to take on a scholar's stand and aims at political neutrality and academic objectivity as far as possible.

## CHAPTER FIVE : FINDINGS I:

## QUALITATIVE ANALYSIS OF TEACHERS' TALK

As discussed in the previous chapter on methodology, to find out the pedagogical and communicative functions of code-switching in the content subject classroom in EMI schools in Hong Kong entailed a fine-grained contextual study of the classroom discourse. Conversation analysis which focuses on the organization and sequential flow of talk in the interaction was used as a tool to achieve the purpose. Audio-recording of the fourteen lessons under study allowed the researcher to recapture and analyze the fleeting nature of the speech events in the classroom in its totality, in a line-by-line and in-depth manner, so as to uncover the subtle and shadowy nuances of meaning hidden behind the verbal acts. The analysis was qualitative in nature. No pre-coded categories or tables were used. Instead, the results were arrived at inductively without a-priori assumptions; they emerged from and were grounded on the data during the process of analysis (Glasser \& Strauss, 1967). They were expressed in descriptive terms of various categories of code-switching functions, and the process of category generation involved noting regularities, salient themes and repeated phenomena from the data. This chapter is a presentation of these results.

### 5.1 LESSON OBJECTIVES, DISCOURSE STYLES AND LANGUAGE DISTRIBUTION PATTERNS

Extracts were mainly drawn from the transcriptions of School B, providing the most information-rich data among the three schools, because School A, with the student population of the highest English proficiency, produced very little code-switching instances, while School C, with that of the lowest proficiency, produced very little
variation in code-switching pattern apart from the insertion of English terms in the Cantonese base language for explanation purpose. And then among the five lessons recorded in School B, History 2, Geography and EPA2 provided almost all the data discussed in this session because History 1 and EPA1 yielded very few code-switching instances. One reason that accounted for the differences in the teachers' language distribution patterns and code-switching patterns even with the same teachers and in the same subject was the different objectives/content of the lessons and the different discourse styles. The same history teacher used more Cantonese and code-switching in History 2 than History 1 because she talked more about Chinese culture in History 2; the same EPA teacher used more Cantonese and code-switching in EPA2 than EPA1 because she needed more students' involvement in accomplishing the task of a survey in class in EPA2. The geography teacher also used a lot of Cantonese and code-switching because she was interacting a lot with the students in going through a test paper. This shows that the lesson objectives and content directly influence the discourse styles, which, combined with the factor of students' language proficiency (which will be dealt with in the next chapter), produce different language distribution patterns and hence different code-switching patterns. The following sections will present how lesson objectives and content have a direct bearing on the code-switching patterns.

### 5.1.1 THE USE OF L1 TO EVOKE STUDENTS' CULTURE

In History 2, the teacher talked in English most of the time (98.6\% of the entire lesson, see Table 2, P.175).. Only $0.8 \%$ of her entire lesson was in Cantonese and $0.6 \%$ in code-switching. Interestingly all of the three long stretches of Cantonese and Cantonese-English utterances were focused on culture-related topics: life-after-death
('religion' from turn 62 to 72 ), weight of stones in terms of rice ('measurement' from turn 136 to 158 ) and Chinese rituals of ancestral worship ('folk practice' from turn 187 to 207). It has long been accepted by linguists and anthropologists that language and culture are closely related. Although the strong version of Sapir-whorf's hypothesis which propounds that language determines the way we think and act has been rejected by many, the weak version of this hypothesis that there are cultural differences in the semantic associations evoked by seemingly common concepts is generally accepted (Kramsch, 1998). Cultural concepts are not always translatable, (e.g. the popular 'majoh' game was originated from China and the Chinese name is retained in the English language).. At times concepts in one culture can only be best expressed in the language used in that particular culture. This echoes what Bakhtin (1990, p.? ) says about language users only borrowing words 'from the social stock of available signs', and culture can be seen as a system of signs. In the lesson History 2 in School B, the teacher drew comparisons from Chinese beliefs about after-death and folk rituals of ancestral worship in order to illustrate the alien Egyptian beliefs in mummies and soul. She successfully made herself understood not only because she was able to use the students' culture to contribute to the learning process (Nelson, 1987), but she was also able to switch to Cantonese to bring home the familiar concepts deeply rooted in the students' minds.

The following is an extract from the data and also the analysis. The transcription convention used is the Yale system for Cantonese words, and in bold type. Explanation will be given in English and in italics immediately following on the next line. The conventions used are those of Conversation Analysis (Appendix 3).

## Extract 1:School B, History 2.

(The teacher was talking about the Egyptians' beliefs in life after death).
187. T: Do we, the Chinese, share similar belief of the Egyptians?

Yes or no?
188. SS: Yes!
189. T: Evidence! Evidence! Do we believe in the life after death?
190. SS: Yes!
191. T: Yes! How do you know?
192. S: Cheun-chi-wohng!

Emperor Chin!
193. T: Yes, Cheun-chi-wohng a. Bing-ma-yung a. Yes, they are in Chin's tomb! Emperor Chin, Terra Cotta Warriors.
What about nowadays? Do we believe in the same thing?
194. SS: No!
195. T: No? Think of others? Yes or no?
196. SS: Yes!
197. T: Evidence! Yauh matyeh jenggeui a?

What evidence is there?
198. S: Siuheung.

Burning incense.
199. T: Siuheung gam dim a?

Burning incense. So what?
200. S: Bei yeh keui sihk.

Give him food to eat.
201. T: Msai oh-chen keui la. Haih-mai a? Bei di yeh keui sihk-ha sin dak ga. Johng yauh le?
Cannot starve him, right? Give him something to eat first, right? Anything more?
Seiyahn wuhn yauh di matyeh yihsik a ? Nihn-nihn dou yauh siu di yiji a.
What are the rituals for dead people? There're burning of papers every year.
Yat sei jauh siu ga daaih che.
Burn a big car once somebody is dead.
Ngoh haih yijipou gindouh houdo sauteih dihnwa a, bohaaih a,
I saw many mobiles, sports shoes,
gameboy a. Siu gam do yeh jouh mat a?
gameboy in the paper shop.

Why burn so many things?
202. S: Haih hahbihn yauh dak saih.

For use below.
203. T: Haih hahbihn yauh dak saih.

For use below.
Sihng jeung mahjeuktoi dou siu bei keui.
The whole Mahjong table is burned,
Juhngyauh geido go yanh a?
Together with how many people?

## 204. S: Saam go. <br> Three.

## 205. T: Saam go. Dimgaai msiu sei go a? Daih-sei go haih bingo?

Three. Why not four people? Who is the fourth one?
206. S: Jihgei!

Oneself!
207. T: So we share similar beliefs, right?

The teacher asked for evidence for the Chinese people believing in life after death in turn 191. In her next turn, she accepted the student's answer in Cantonese (192) by repeating the same Cantonese phrase on Chin Emperor, and she expanded the answer by supplying another Cantonese phrase for Terra Cotta Warriors. She was able to take into consideration that the English version of these historical terms were non-existent in Form One students' 'stock of available signs', and therefore Cantonese was needed to carry on with the communication. In turn 197, she initiated a question in Cantonese, in order to explore more what the students knew of Chinese cultural practices as evidences to life-after-death. So the next nine turns (198-206) were a heated discussion of Chinese folk rituals in ancestral worship, including burning incense, burning paper money, paper commodities and toys. As these beliefs and rituals were best expressed in the students' Ll due to reasons mentioned above - untranslatable cultural concepts (e.g., the popular Chinese 'Mahjong' game in turn 203) and the absence of English vocabulary in the students' repertoire of knowledge, the use of L1
has indeed contributed to the learning process of the subject content, i.e., Egyptian mummies and related beliefs.

### 5.1.2 THE USE OF L1 FOR COLLABORATIVE TASKS

Qualitative analysis of the data showed that in the sampled lessons where the greatest amount of Cantonese and code-switching was found, there was a common lesson objective, i.e., a collaborative task that the teacher wanted to carry out with the class. In the Geography lesson in School B, where $40 \%$ of the lesson time was conducted in Cantonese and Code-switching, the task was for the teacher to go through a test paper with the class to make sure the students know and understand the content of the test paper. In EPA2 in School B, where $47 \%$ of the lesson time was conducted in Cantonese and code-switching, the task was for the teacher to carry out a survey on the demographic data of the students in the class. In both lessons, the teacher used a lot of Cantonese both within and in between sentences in order to involve the students in collaboration, to engage them in dialogues and even negotiations. The teacher's use of the Ll was not just to encourage students to talk in a language they were comfortable with, but also to signal her identification with the students as members of the same culture and language group so that a relatively equalitarian basis for collaboration and negotiation could be established (Gumperz, 1982; Le page and Tabouret-Keller, 1985). The following is an analysis of excerpts taken from each lesson.

## Extract 2 School B, Geography

(The teacher was checking a test paper with the students)
180. T: What can the government do? I have five points. You just need to give me
four. Urban renewal, better urban planning, new town development, reclamation, new transport network. Oh, reclamation. Mind the spelling, please.
181. Sl: No 'i'
182. T: Yes, no ' $i$ ', the letter ' $i$ '. Haih la. Gusiufai dou gei-dak la.

Yes, even Gusiufai can remember.
Ngo teih-jo houduo chi la.
I've reminded many times.
Yauh tuhnghohk touhsin wah le. Yuhgwo go yisi aam gam dak-mdak ne?
Some students asked,
if the meaning is correct, is that $O K$ ?
Batgwo ngo le jauh gokdak leidi jih hou naahn yohng daihyihdi chih gong gobo.
But I think that these words are hard to be replaced by other terms.
183. S2: Peiyuh provide more new town.
for example
184. T: Provide more new town. Gam dou yauh new town a.

This still has 'new town'.
185. S3 Build the city again.
186. T: Build the city again. Nei gok-mgokdak yauhdi gwaai-gwaai-dei ne?

Don't you think this sounds a bit strange?
187. S4: Fill the sea again!
188. T: Nei yat hoichi hohk ge sihhau jau hohk hou keui ama. Se ge sihhau. When you once start to learn, you learn the good things, when you write. OK, the last part. Bonus. Why is urban planning important to Hong Kong?
189. S1: No!
190. T: Dimgaai yiu sehngsi kwaiwaak-dak gam hou jak?

Why should there be such good urban planning?
Don't know.
191. S1: Mji.
192. S2: Yanwaih Heunggong sai!

Because Hong Kong is small
193. T: Yanwaih Heunggong sai. Haih se leileui yeh la. La. Tengjyuh lobo. Because Hong Kong is small. Yes, write this sort of things. Hey, listen . Laihyuh se matyeh le? Hong Kong is hilly. There is limited land. That means For example what to write.
there is not enough land.
Mgau deih lobo. Gam mgau deih jauh jihyihn wui faatsang matych sih a?

Not enough land. Then what will naturally happen when there's not enough land?
194. S2: Lamsan!

Landslip!
195. T: Land use conflict.
196. Sl: Msik chyun.

Cannot spell
197. T: Msik chyun. C-o-n-f-1-i-c-t. Gan-jyuh jauh dim a?

Cannot spell. What follows then?
Gan-jyuh jeuihou jauh yauh kwaiwaahk yauh matyeh houchu a? Industrial
Then it ought to be good planning and what is the advantage?
area will not be close to residential area. There is more open space. Reduce
population density. Develop transport network Keihsaht gongsai urban Actually tell all the advantages of
planning yauh matyeh hou ....
the main advantages of ...
jyuhyiu yauh matyeh houchou ama. Keihsaht syu leuibihn haih yauh ge. urban planning.

Actually they are in the book
Nei yauh-mouh louhyi-dou le?
Did you notice?
198. S1: Mouh!

No!
199. T: Mouh! Gam le. Litei daam dak jeui hou le haih a Gougufai.

No! And so, The best answer of this question comes from Gougufai. ((Applause))
Gam le. Yatjehngaan ching keui sehai haakbaan. Batguo sihgaan
OK. Later on would he please write on the blackboard. But let me distribute gwaanhaih ngoh paai-jo bou sin la. Hou la. Sai-msai goijing le?
the books first.
Good. Do you need to make corrections?
Neih kauhsin yiging hou gwai gam chau-dei di daamon lo ho?
Just now you have very nicely copied down the answers, right?
Gam yinhhou fannheui ga duo siu-siu jauh jouh hou gala ho.
Then go back home add a little more and it's done, eh?
Gam jekhaih yiu jouh la. Yiga dou jouh-jo daaibui lok.
Then that means you need to do it now that you've done more than half.
Waahngdihm neih dou jouh-jo daaibui lok.
After all you've done more than half.
200. S1: Mhou la!

Don't!
201. T: Geisi gaau.

When to hand in.
202. S1: Msai gaau.

No need to hand in.
203. T: Gam gaandan ge yeh. Leung yaht jauh jouh-yuhn la. Yat yaht dou Such simple things. You can finish in two days. Even one day, jouh-yuhn la ho, houchi. Batyu jauh tingyaht lak.
isn't it? Looks like it. May as well be tomorrow.
204. Sl: Mhou a!

Oh don't
205. T: Tingyaht baanjeung ching bong ngoh sau.

Tomorrow monitor please help me to collect

In these 26 turns, the teacher self-initiated to use the L1 to start a turn six times, contrary to most code-switching instances which are triggered by the code used by the other party. Hence there are particular purposes of the language shift in this lesson. In line 182 , the teacher switched to the L1 to indicate a change of frame from a formal instructive frame to an informal personal one which served two purposes. On the one hand, the use of the 'we code' was instrumental in bringing a friendly and relaxing atmosphere to what could have been a tense, and to some, unhappy time of knowing one's test results. On the other hand, it was an ironic remark (even Guisuifai can remember) on the student ( S 1 ) who just gave the correct English answer, because it was the same student who always said negative things like 'I don't know' 'cannot spell' 'no', etc. ( $189,191,196$ and 198). In the same turn, the teacher carried on with Cantonese to explain why some answers could not be accepted. Again the use of the L1 signaled a friendly and sympathetic attitude to her students for not accepting their answers. The six turns that followed (183-188) showed a repeated pattern of students' self-selected suggestions of answers in English immediately coupled with the adjacent pairs of teachers' evaluations in Cantonese. The teacher obviously did not want
anyone, due to low English proficiency, to miss her evaluation which showed the correct way of answering questions. This motive of involving every student in the process of learning can be seen again from the next two turns. She repeated in turn 190 the same question she asked in English (188), but this time in Cantonese, in order to solicit answers from the class when she got no response from them except a 'no' from the problem student S1 (189). In response to her Cantonese question, a student self-selected to give a Cantonese answer (192), which she evaluated in Cantonese, rephrased the answer in English, and then switched to a question in Cantonese (193). The same pattern of correct answer in L2 followed by a question in L1 was repeated in the next turns, where she corrected the student's Cantonese answer in English (195), and then asked a question in Cantonese (197). In the same turn, she gave information in English as the correct answers, and then appealed to the students' method of study by asking them whether they had noticed all the answers were from their textbook, and these were all done in Cantonese. Turn 198 and 199 were an adjacent pair where the teacher admonished the trouble student's challenge by repeating his negation in L1. Interesting the teacher never admonished this student in English. She either ignored $\operatorname{him}(191,192,200,201$ etc.) or answered him back in L1, showing a certain degree of accommodating and condoning his rebellious behavior in a lesson where the teacher and students were involved on a relatively equalitarian footing in a collaborative task. The same teacher's turn was then devoted to gently persuading the students to do correction. Instead of giving a command in L2, the teacher talked in L1 how easy it was for the students to make corrections, and in her next turn (201), she asked them in L1 when to hand in, which signaled a negotiable platform to the students. She only gave more persuasion in L1 (203) and the final command in L1 (205) when her invitation to negotiate was responded to with a challenge by the trouble student (202).

The following is another extract that shows how the teacher used Ll to encourage students' involvement in a collaborative task of a survey on the demographic information of the students in an Economics and Public Affairs lesson:

## Extract 3: School B: EPA 2

(The teacher was doing a survey on the demographic information of the class).

1. T: Eleven or below hold up your hand.
2. S1: Matyeh male?

What is male?
3. T: Male. Naahmjai a. jouh mat a?

Boys! What happen to you?
yigaa ngoh mahn hah, yauh-mouh yahn sahp-yat sui wahk yihah ge?
Now I ask, is there any person eleven years or below?
4. S2: Yauh !

Yes!
5. T: Yauh a ? (hhh) Saileih woh (1)yauh-mouh? Mouh ama
There is? That's great Is there? No?
Gam mhaih yuhnhun lo, yatchaih jouh survey.
So just circle the answer. Let's do the survey together
Yauhmouh yahn sahp- yat sui waahk yihah ge, yauhmouh a, Is there any person eleven years or below? Is there any?

Youhmouh a? Youhmouh a? Yauh dehng mouh a?
Mouh ama?
Is there any? Is there any? Yes or no?
No?
OK. Sahp-jih sui ge? Sahp-jih sui gei ngohdeih dou dang haih matyeh $\mathbf{a}$ ?
Twelve years old? We also regard twelve years
something as what?
Dou dang sahp-yih a. Sahp- yih sui ei dou dang sahp-yih.
Also as twelve.
regarded as twelve.
Sh::: batyu heisan la. Ngoh geng gai cho a. Sh:::Rather stand up. I fear calculate wrong.
Heisan, sahp- yih sui gei. Sahp- yih sui gei meidou sahp- saam sui ge
Stand up. Twelve something. Twelve something but not yet thirteen.
Geiduo a? OK. Gou go tuhnghohk. Chohdei.
How many? Nine students. Sit down.
6. S3: Gou go

Nine
7. T: Yi...houchih mhji bo. Yih, sei, luhk, baat, gou go. Aam.

Eh..seem to be more. Two, four, six eight, eight, Correct
Mhgoi sai. Sh:::OK tinh la. Thirteen or above....
Thank you very much fill it out.
Thirteen or, eh.. gamchi mhou la. Taai duo yahn la. This time no good. Too many people.

Thirteen or above. Sahp- saam sui waahk yiseuhng ge. Thirteen years or above.
Gam mhaih gaam juo keui lo. Naahmjai a. Ngoh yigaa jehnghaih gong. So isn't it to deduct it? I'am now only talking about boys.
Mhaih gong gen neuijai e. Naahmjai e. Yau geiduo go naahmjai e.
I am not talking about girls. Boys, how many boys?
How many?
(( unintelligible))
8. S3: Yau yih-sahp-yat go naahm gaap-fan gou go jikhaih sahp-yih go

There are twenty one males, deducted by nine, means twelve.
9. T: Sahp-yih go, hou.

Twelve. Good.
Sh::: sahp-yih waahk yiseuhng ge naahmjai keih-heisan(1)

- boys who are twelve or above, stand up.

Sahp-yi::h, sahp-saam dihng sahp-yih a?
Twelve ::: Thirteen or twelve?
Sahp-saam waahk yiseuhng ge keih-heisan. Sh:::.
Those who are thirteen or above, stand up.
10. SS: Sahp-yih go !

Twelve people!

In these ten turns, Almost all the utterances by both the teacher and the students were in the L1, except three incidences of tags (OK), five incidences of short clauses and one incidence of a single noun used by the teacher. In turn 3, the teacher's use of Cantonese was triggered by a student's question asked in Cantonese, after which most of the utterances were said in Cantonese. It can be seen from this extract that the teacher was very transparent in her feelings and she almost thought aloud to her students. In turn 5 , when she thought there were students below eleven in the class, she laughed and said a very colloquial Cantonese word 'Saileih' (Great/Wonderful!), which is rarely used in formal occasions or in the classroom. Then when she noticed there was nobody below eleven years old, she switched the topic by giving an instruction (circling the answer) and reiterating the purpose of the lesson (doing a survey). Then in the same turn, she asked whether there were students below eleven years six times before coming to the conclusion of 'no', showing that she wanted to make sure the calculation was correct. Then when it came to counting twelve-year-old boys in the class, she asked them to stand up in order to see more clearly. Again, she expressed her feeling overtly to the class, saying that she was afraid of making a mistake about the counting. The overt expression of feelings in one's L 1 definitely brought along a very informal and relaxed atmosphere to the class and also put herself in an intentionally disadvantaged position by exposing her weakness (the fear of counting wrong) in front of her students. The fact that she could solicit the students' help in counting after this turn showed that the students were motivated to contribute to the survey (turn 6) probably because they felt they were for that moment on the same footing as the teacher, or even more superior to her and hence needed to help her out, and the answer was responded with a big thank you showing the teacher's appreciation of their help. The same pattern repeated in the next turn, when the teacher seemed to have lost track of the counting when too many
thirteen-year-old boys stood up. She switched from English to Cantonese to express her feelings about the situation: 'This time no good, too many people'. Although she composed herself and reasserted her authority by giving an instruction in English, she immediately switched back to Cantonese to repeat the same instruction and then suggested the method of subtracting the total number of boys in the class by the number of students below thirteen. This overt expression of feelings, and suggestion of the problem-solving method in one's Ll again was able to solicit the students' help. In the next turn, another student came to the rescue of his teacher by offering the answer together with the method to work it out (turn 8). In turn 9, the teacher showed her appreciation of his help by repeating the answer with an evaluation word 'good', all in Cantonese. Then she wanted to make sure the answer was correct, and hence asked all the thirteen-year-old boys to stand up. This time, she had a slip of tongue, and instead of saying 'thirteen', she said 'twelve'. She corrected her mistake after a pause of one second, repeated the correct question in Cantonese, and was then able to solicit the students' answer in the next turn in Cantonese. It may be worth pointing out here that the EPA teacher who conducted this lesson was a very experienced teacher. Her ability to capitalize on her own mistakes by exposing her weaknesses to her students in the Ll had indeed successfully turned the lesson into a true collaboration between teacher and students in a commonly agreed upon task.

The above analysis suggests that the lesson objective and content may be an important factor that decides on the use of Ll and code-switching patterns. The next section will be a presentation of the analysis on the functions of code-switching. Again, no pre-coded categories were used. The results were arrived at inductively from the data.

### 5.2 CLASSROOM CODE-SWITCHING FUNCTIONS

Various patterns of code-switching functions, both positive and negative, emerged
from the data collected during the process of analysis after the audio-recording was played several times. Positive functions of code-switching refer to the alternate use of Cantonese and English which can facilitate either the understanding of the subject content or the acquisition of the English language, whereas negative functions refer to those which do not help either of these. These patterns/categories are presented below with illustrations from actual excerpts taken from the sampled lessons.

### 5.2.1 POSITIVE FUNCTIONS OF CODE-SWITCHING

### 5.2.1.1 Translation/equivalent

From the data, it was found that the most basic communicative and pedagogical function of alternating L1 and L2 is in giving the translation or equivalent of terms in class, and they confirmed what earlier researchers wrote (Gutherie,1987; Eldridge, 1996; Buzkamme, 1998). Sometimes the translation was given by the teachers; sometimes it was given by students in response to teachers' deliberate prompts to check understanding, instances of both are recorded in the following excerpts:

## Extract 4: (School B, EPA 2)

41. T: OK, OK, and the Muslim, Wuihgaau

Islam
Extract 5: (School A, EPA 1)
2. T: The first topic is about the political argument these few days.

Jengjih jangaau, understand?
Political argument

In both Extracts 1 and 2, the teacher deliberately repeated in L1 a term which she thought was too difficult for the students to understand, or as one teacher interviewed said, "special terms that I want my students to know the Chinese equivalent."

## Extract 6: (School B, Geography)

51. $\mathrm{T}:$ What is community center?
52. SS: Sehkui jungsam!

Community center
53. T: Sehkui jungsam, yes! OK, there's a hospital.

Community center

## Extract 7: (School B, History 2)

11. $\mathrm{T}:$ Where did they build it $? \operatorname{In}(1)$ in $=$
12. $\mathrm{S} 1:=$ desert. $=$
13. $\mathrm{T}:=$ desert. What is desert?
14. SS: Samohk!
desert
15. T: Samohk! OK, that's where you can find $(+)$ lots of sand, in desert. How to spell desert?

In both extracts 3 and 4, students gave a Chinese translation in response to the same question format "What is....?" asked by the teacher with an implicit purpose of checking understanding. But the difference is, the Geography teacher accepted the students' Cantonese answer as it was, then changed to another topic, whereas the History teacher followed up the Cantonese answer with an English definition of the same term, and also a question to check spelling. This is a very useful simple
technique to capitalize on the code-switch to facilitate second language acquisition for the students, because giving the definition in English would strengthen the students' use of the L2, and the spelling check would also help students to memorize an often neglected area of L2 learning (Butzkamm 1998).

### 5.2.1.2 EXPLAINING DIFFICULT CONCEPTS

From the data obtained, it is found that teachers often switched to Cantonese to explain difficult concepts to the students.

## Extract 8: School B. History 2

(The teacher was talking about the Egyptians' belief in life after death).
61 T: What's the direction? This is the $(+)$ east, and this is the $(++)$ west. This is the third hint. Why did they build the pyramid in the western bank of the river?

62 S1: Sai.
West.
63: T: Sai? Sai matyeh a sai?=
West? What is west?
64.S1: =seuhng saitin=

Rise to the western sky
$65 \mathrm{~T}:=\mathbf{O}(+)$ seuhng saitin $\cdot$ yea ${ }^{\wedge}(1)$ this is what we believe, Rise to the western sky the Chinese believe. Matyeh haih seuhng saitin a?

What's rise to the western sky?
66 S2: Sei.

Dead.
67 T: Sei? Gam jikhaih dimyeung a?
Dead? So what does this mean?
68 S2: // Guisai.//
Back to the west.
69 S3:// tintongh.//
heaven
70 T : Yes, we would go to the other world. OK? In the, in the west. OK? Souwingcheuhng, Yes, sit straight! Thank you. Yes, we believe, when we die, the Chinese die, we'll go to, to the heaven OK, in the ( + ) following (1) in the west, in the west. The Egyptians believed in the same way. Yes! In the west, this is the west. They believe, this is where the sun $(+)$ sets. What's sunset?

71 S1: Yahtlohk!
Sunset!
72. T: Yes, the sun go back home to sleep, OK? OK? When the sun sets, then their soul will be traveled together to the western world. This is what they believe.

Yahtlohk le, ngohge lihngwuhn jauh gen-jyuh yatlohk le jauh heuidou By sunset, my soul will follow the sunset to go to
$(+)$ ngohge saitin la. That's why they built it in the western bank but not the my western sky
eastern side, OK.

In the above classroom discourse, the teacher asked questions $(65,67)$ to check students' understanding of the concepts of death and after life. In response to the questions, various students self-selected to give answers $(64,66,68,69)$. It was noted
that the students all answered in Cantonese, and instead of stopping them, the teacher confirmed the answers in Cantonese, and followed it through with another question in Cantonese (65, 67). Writers on code-switching (Auer 1984; Johnson 1982; Lin 1990) do mention that a major function of code-switching to L1 is to explain difficult concepts. However, an important point they have overlooked is that it is not just the language barrier that the use of Ll can overcome, but the understanding of a foreign idea which is not available in the students' repertoire of existing knowledge. In Ndayipfukamiye's words, the L 1 is used 'to bridge the gap between the world of the textbook and the students' existing knowledge' (Ndayipfukamieye, 1996, quoted in Martin, 1999, p.40). In Vygotsky's theory, the use of the Ll is to ensure that the teaching actions are located in the Zone of Proximal Development, the range of knowledge that can be made available to the student because it is linked to his existing knowledge or experience and beyond which nothing is available for learning (Vygotsky,1968). Here in this excerpt, it can be seen that teacher allowed and actually encouraged the students to put abstract concepts in their L1 (by confirming the answers in L 1 and then asked another related question in L1), so as to establish 'mutual management and inter-subjectivity' (Van Lier, 1983, p.190) with the students, to explore what students know about the concepts of death and after life. Since a similar concept, i.e., "rising to the western sky" (seuhng saitin), also exists in the Chinese culture, it was exploited and quoted in Cantonese to explain an Egyptian concept or a western concept of the soul. The whole point of bringing in existing knowledge would have been lost if this indigenous Chinese term had been translated into English. Therefore the use of the L1 plays a very key role of helping the teacher to locate on the Zone of Proximal Development for bridging the gap between what is known already and what is not available for learning.

Later on in the lesson, the same History teacher also used this tactic to help her students to understand how heavy the stones for building the pyramid were, by referring to the weight of the bags of rice Hong Kong people usually buy in supermarkets, and this was also done in Cantonese, which is recorded in Excerpt 5.

## Extract 9: School B History 2

(The teacher was talking about the size of the pyramids)
126.T: How large is the stone?
127.S4: Very big!
128. T: Very big! How big it is? How big? How big is the stone?
129.SS: //very big!//
// big, big!//
130.S5: Lukh jeung toi gam daaih!

As big as six table
131.T: Lukh jeung toi gam daaih a

As big as six table
132.SS: (( unintelligible))
133.S? (hhh)
134. T: How heavy is a stone?
135. S5: Two tons!
136. T: Two- two tons! How heavy is two tons?
137.SS: ((unintelligible))
138.S5: Leung deun.

Two tons
139. T: Leung deun jikhaih geichung jek? Yat deun yauh geido chin haak a? How heavy is two tons? How many kilograms does a ton have? Geido chin-haak a? Yat deun yauh (2) geido chin-haak a?

How many kilograms? One ton has how many kilograms?
140. S4: Yat chin-haak.

One thousand grams
141. T: Yat chin-haak?

One thousand grams?
142. SS: (hhh)
143. T: Mhaih a. Yat deun yauh (1) Yat chin go chin-haak.

No. One ton has one thousand kilograms.
Ah, how heavy is a bag of rice? How heavy is a bag of rice? How heavy is a bag of rice?
144.SS: ((unintelligible))
145. S?: Elephant.
146.T: Aa.- Big El- Ele:::phant. Gam Jeuhng paaih laih a ligo.

Golden Elephant brand this is.
How heavy is a bag of rice? Five -
147.S5: Five kilograms.
148.T: Right, five kilograms. If you don't know how heavy is a bag of rice, that means you seldom help your mother. Next time I should send you to the supermarket to buy two. So, how big would be the stone for building the pyramid?
149.S6: Yih-baak baau maih.

Two hundred bags of rice
150.T: Yih-baak baai maih. Yat gauh daaihsehk yauh leuhng deun la.

Two hundred bags of rice. One big stone has tow tons.
Yat ji leuhng deun. Yat deun jikhaih yauh geido baau maih a?

One to two tons. $\quad$ One ton is equivalent to how many bags of rice?
151.S6: Yih-baak baau maih.

Two hundred bags of rice
152.T: Yi-baak baau maih. Jikhaih duhng heilai bin-jo buhng cheuhng la. Two hundred bags of rice That means two hundred bags of rice lumped Ling yih-baak baau maih. together making a wall
153.S5: Waa! Mouh honehng!

Wow! Impossible
154. T: Yauh mouh gin-gwo a? Yauh mouh sou-gwo a? Gam wan yat yaht.... Have you seen this? Have you counted? Then find a day... dahngjahngaan wan yat go heui Waihhong sou. Yat go heui later on send one person to Wellcome Supermarket and one to Wahyeuhn sou. Wayun Supemrarket to count.
155.SS: ((unintelligible))
156.S5: Ngoh dou heui a!

I would like to go too
157.SS: ((unintelligible))
158. T: So you can imagine how big a stone (2) was today.

Here again the teacher wanted to establish inter-subjectivity with the students on the weight of the stone used to build the pyramids. The same pattern as in Extract 8 repeats itself: in response to the questions about measurement, almost all students answered in Cantonese ( $5,13,15,24,26$ ), and again, instead of stopping them, the teacher confirmed or corrected the answers in Cantonese ( $6,16,21,27$ ), and she
followed it through with an expansion of the answer in Cantonese (27) or with another question phrased in Cantonese $(14,25)$. When she tried to check the students' understanding of two tons in the metric system, she asked the question in Cantonese (14). This use of L1 is helpful because measurement is something closely related to one's personal experience and one's mother tongue, which can be illustrated by that the common phenomenon that even a bilingual speaker of excellent command of an L2 may not be able to babble out his/her telephone number in that L2. However, when even that was beyond some students' understanding (15), very wittingly she used the analogy of bags of rice Hong Kong people purchase from supermarkets to make real an abstract mathematical concept. Although the question was easy enough to be asked in English (18), she expanded the analogy herself in Cantonese $(21,27,29)$ and asked related questions in Cantonese (25). As rice purchase from supermarkets is a very common practice related closely to one's daily life, and when most of the teachers' talk was in Cantonese, the students could then figure out in their mental map how heavy the stone in Egypt thousands of years ago was. Again, this is an excellent example of code-switching to L 1 in order to bridge the gap between what is already known, bags of rice, and what is not available for learning, the weight of the stones for building pyramids.

### 5.2.1.3 BUILDING STUDENTS' CONFIDENCE AND MOTIVATION

Closely related to the previous point is switching to L1 in order to boost students' confidence and in turn their motivation for learning. From the data obtained there are examples that confirmed what writers have propounded on this point (Garrett et al, 1994, in Martin, 1996; Pennington, 1995; Probyn, 2001).

## Extract 10: School B; Geography

(The teacher was going through a test paper with the class)
48. T: >Number one, Shatin; number two, Tungchung; number three, Seung Wan; number four, Mongkok.<
49. SS: Seung Wan!
50. S1 'Three' haih matyeh laih ga?

What is 'three'?
51. T: 'Three' haih matyeh laih? Seuhng Waahn lo. Jikhaih (2).

What is 'three'? It means Seung Wan.
Neih jihaih gindou yingman mhaih hou ji haih mat. Haih mhai nc?
Could it be that you see the English and cannot figure out what it is, right?
Seuhng Waahn a. (1) Number four, Mongkok.
It's Seung Wan.

In this lesson where the teacher went through some multiple choice questions in a test paper with the students, S3 obviously raised a rather 'silly' question in asking what option three was (3), because right before this turn, the class had already uttered the word in option three as the correct answer (2). And she asked this question in Cantonese. In response to her question, instead of giving her the answer immediately as a preferred adjacent turn, the teacher repeated her question as a dispreferred second part (4), indicating a doubt about the appropriateness of the question, and then she gave the answer to the question, i.e., what option three was. However, after a pause of two seconds, she posed to the same student the question whether the Anglicized place name presented a difficulty for her. Without waiting for her answer, she immediately went on with the repetition of the correct option. This showed the question was not actually a question that expected an answer, but was a comment made, and here an
expression of understanding on the student's difficulty. The use of pauses was another strategy to strengthen the message conveyed. The first pause of two seconds indicated a change of frame, from a formal pedagogical frame (and perhaps in a critical tone) to an informal friendly frame. The second pause of one second, similarly, was a change from an informal friendly frame to a formal pedagogical frame. The fact that the repetition of the student's question, the answer in Cantonese, and the friendly comment on the student's difficulty in recognizing the Anglicized place name were all done in the L 1 , in contrast to the use of English before and after these five utterances, all signaled that the teacher wanted to identify with the student, even when challenging the appropriateness of her question, in showing her sympathy and understanding of her learning difficulty. This echoes what other researchers write about the value of the mother tongue and its culture, which when used appropriately will boost the students' self-perception, attitude, motivation and achievement (Garret et al, 1994).

### 5.2.1.4 BUILDING RELATIONSHIP

Numerous examples can be found from the data obtained that code-switching to L1 is used by the teacher to build up a warm relationship for solidarity (Gumperz, 1982; Guthrie 1987; Adendorff, 1993), and for admonishment (Pennington, 1995; Lin, 2001; Probyn, 2001).

## Extract 11: School B; EPA2

(The teacher was doing a survey on the demographic information of the students)
1.T: Now according to the survey there are male and female. So within our class, within our class only. So the survey is just refer to, one C. So conduct a survey in
one C and complete the following table. And then let's do it together Yatchaih jouh lo bo. Age group, OK (1). Eleven or below, hold up your hand. Let's do it together.

Here the teacher gave a preview of the lesson in English by introducing the need to do a survey. She just switched to Cantonese when she invited the students to participate in the survey. The Cantonese sentence here is definitely not for explanation purpose because the original English sentence is easy enough to understand, but for using the 'we-code' (Gumperz, 1982) to invite collaboration from the students.

## Extract 12: School B; History 2

(The teacher was asking about a student who fell asleep in class)
104. T: So we can learn a lot from the Egyptians. Jauwihngch:::eung, what can we learn from the Egyptians? Are you feeling well today? (1) Or just sleepy? Not feeling well? Isn't , eh? $(($ to class $))>$ Siusik yauh-mouh gin keuih dabo a kauhsin? $<$

Did you see him playing ballgame in the recess just now

## 105.SS: Paaubouh ama. Paau-jo chin-gei maih a!

Running. He ran for more than a thousand meters!
106.T: Ok, ngoh bei neih fan do saam fanjung. Mouh lobo ha.

I let you sleep for three minutes more. No more, eh?
Joi fan jauh puih-faan bei ngoh lak.
Sleep more, you return the time to me

## 107. SS: Ngohdeih dou yauh paau.

We ran too
108. T: Neihdeih dou yauh paau a? Ngoh ji neih hou jungyi seuhng lihksi tohng
soyi mwuih fangaau ga. OK, what can we learn from the Egyptians? so you won't sleep.

The teacher here changed from the pedagogical frame to the informal personal frame by addressing the student's Cantonese name coupled with a stretching of the pronunciation (104). The fact that she was not given a second part in this adjacent pair indicated that probably the student was not paying attention, dozing off perhaps. Instead of scolding the student, the teacher was able to create a friendly atmosphere with the whole class and a light-hearted break from the routine by switching code and using other contextualization cues. This was achieved by seeking alliance with the rest of the class with a question put in Cantonese about the activity of the student concerned. So the problem now was made a common problem of the class. The quickened tempo was a contextualization cue to 'indicate otherness', to establish a contrast that indicates something new is to come (Auer 1992, 1995). It marked the personal friendly frame from the formal teaching frame. After getting the answer from the class, the teacher cracked a joke on the return of the time to her to compensate for the time lost in sleeping on the part of the student in question. She also appealed to the class's love of the subject and expressed her confidence in their staying alert (108), whereby strengthening the warm relationship so far built. All these eleven utterances in the dialogue between the teacher and the class were done in Cantonese, and were sandwiched between clauses in English. The effect of the warmth and togetherness would definitely have been reduced had the dialogue been carried out in English.

## Extract 13: School B; Geography

(The teacher was scolding a student who always gave negative answers)

115 T : OK, one C. One C. Why do some people like living near building A?
116 S1: I don't know.
117 T: Neih haih-mhaih seung bin-faan saai lihng a?
Do you want to have all zeros?
OK. Can anybody give me the answer?

Here the student was apparently challenging the teacher's authority as he had done so several times already as shown in the recording. The teacher switched to Cantonese to scold him marking both a change of frame and also holding him responsible by speaking in a language he would not have misunderstood. The discipline would not have been established if the line had been spoken in English. Then she put the question to the class by reverting to English indicating a change of frame.

### 5.2.1.5 FOR NEGOTIATIONS

From the data, it is found that the Ll was also used by the teacher to give the students an equal communicative platform to negotiate with the teacher herself on lesson procedures or methodology. This again confirmed earlier findings and suggestions made about using L1 for negotiations which in turn encourages greater autonomy and control, and hence greater motivation for learning on the part of the students (Aston, 1983, quoted in Papaefthymiou-Lytra, 1997; Atkinson,1987; Probyn, 2001).

## Extract 14: School B; EPA2

(The teacher was doing a survey on the demographic data of the class)
57.T: Thirteen or above, stand up. Age thirteen or above. Age thirteen or above (2). OK. Age thirteen or above (2). Eight! Nine or eight? (1) Thirteen or above.
58.S1: One absentee!
59.T: Ah, one absentee. Alright. Anyway, exclude. Well, I just take it, one, two, three, four, five, six, seven, eight, eight together. Oh. I just take nine together. OK I take the nine. Sh::: the absentee to be the exceptional. OK. I make her as the others.
60. S2:Gai-maih go absent dou haih baat go neuijai, yihga dak chat go jima.

There are eight girls even you count the absentee. Now you get only seven.
Yi,seih, luk, baat go a, ga::o coa!
Two, four, six, eight! No way!
61.SS: (hhh)
62.S2: Bin go wah bei ngoh ji gai cho sou?

Who told me that it was wrong calculation?
63.T: Ga maih mhaih aam lo? Sei-sahp-saam yahn.

Isn't it correct to add them up? Forty-three persons.
Go go absent ge tuhnghohk haih-mhaih sahp-saam a, waahk yiseuhng a? Isn't the absent classmate thirteen or above?
Dak la, mh ganyiu la.
It doesn't matter, alright.

Here the teacher first expressed some doubts in her calculation (57). Then in her next turn she confirmed the number to be nine (59) after a student self-selected to tell her there was a girl absent (58). So far the few turns conducted in the collaboration between the teacher and the students were in English. However, in turn 58, S2 blurted out in Cantonese that the teacher's calculation was wrong, which then led to an uproar of laughter from the class (61), to be followed by more challenge on the part of S2 in 62. Instead of scolding the class or S 2 in English, it can be seen that the teacher responded back in Cantonese for negotiation (63), although she was previously talking in English; she suggested doing the arithmetic in another way which could then round up the number. It can be seen that the switch to Cantonese put the teacher on the same footing with her students so that she could start negotiating with them in this calculation; she allowed her students to challenge her because the task in the lesson was a collaboration between teacher and class to work on a survey, It can be
imagined that if the teacher had answered back in English, the students would have had difficulty in accepting her final decision.

## Extract 15: School B; Geography

(The teacher was checking a test paper with the students)
160 T: C? North America. Number one? Atlantic Ocean. Number two?
161 SS: Pacific Ocean!
162 T: Pacific Ocean. Number (1) OK, and then (1) Artic Circle. Two, Tropic of Cancer. Three, Equator. No capital letter - half mark to be deducted.

163 SS: Pooh!
164 T: Yauh aai ?Asia go $\mathbf{A}$ jih neih yatjou jidou yiu daaihgaai gala. Haih-mhaih?

Yelling again? You know much earlier on that Asia should have capital $A$, right? Ha, janhaih. Oh yes, Tropic of Cancer.

Really!

As in excerpt 14, Excerpt 15 shows that the teacher deliberately put herself on equal communicative footing with the students by speaking Cantonese (164) in reaction to their disagreement over her ruling (163). To the students, it was a negotiation in which they had a part to play even though the teacher's final judgment was to be accepted in the end. The same effect would not have achieved had English been used.

### 5.2.1.6. FOR METALANGUAGE

The use of the Ll as a metalanguage to talk about language, about the text and process the text have been highlighted by various writers (Luke,1989;

Papaefthymiou -Lytra, 1997; Martin, 1999). The following examples give support to these thoughts.

## Extract 16: School B; Geography

(The teacher was telling the students why they could not get marks in a test paper)
104 T: O yes, one more thing, some of you write 'it is not good to live'.

## Matyeh giujouh not good to live jak. Lidi gam hahmwuh a, gam What is not good to live, eh? Such vague, such

 chaujeuhng ge dou dim mcheut go mehnteih ge yauhhaih mouh fan abstract answers that cannot pinpoint the question, again gain no marks. OK, Lohjiyan, what is your question?As the objective of this lesson is to check a test paper, the task in hand for both the teacher and students would be to process the text of the question paper and the answers given by the students. Here in this excerpt, the teacher deliberately switched from English to Cantonese to talk about the vagueness and abstractness of the students' answers, the metalanguage of which is absent in the students' L2, English.

Another excellent illustration of the use of Ll for metalanguage can also be found in the same lesson as extracted below.

## Extract 17: School B; Geography

(The teacher was talking about how marks were allocated in a test paper)
$154 \mathrm{~T}: \mathrm{OK}$, total mark is seventy-five. The highest mark is Seventy-one.
Juhng-yauh yat yeuhng yeh meih gong. Yauh saam fan haih Yingmehn fan Still one more thing that is not mentioned. There're three marks for
ge. Dim bei le. Jeuihauh ngoh mhaih gaau-jo ga saam fan ge? Haih

English, how to give? Didn't I teach you to add three marks, for English?
Yingmehn fan ge. Dim bei le? Teng-jyuh. Yuhgwo neih batsih yuhng yat How to give marks? Listen. If you do not use a list, dim-dim liht-cheut le, jauh yihging bei yat fan neih la. Hou lak. then you already get one mark. Good.

Genjyuh yuhgwo neih-di geuiji hou yuehnjing, yauh subject, verb, object, And then if your sentences are very complete, there are subject, verb, object, yauh yat fan. Gam soyi daaih bouhfahn di tuhnghohk dou haih yauh ge. one mark. $\quad$ Therefore most of you students can get it.

Hou lak.Daih saam fan jauh haih neihdeih di geuiji hou lauhcheung a, Good. The third mark is, if your sentences are very fluent, and your answers daapon joujing dak hou hou a, gam neih jauh yauh-maaih ni yat fan. are well organized, then you get the third mark.

It can be seen that the teacher switched to Cantonese to talk about the kind of language expected of students in answering a question. The use of the L 1 in describing the format, the grammar, the fluency and the organization of the answer really help students to gain awareness of language use in the L2, which is very important in the early stage of language acquisition (Van Lier 1983; Papaefthymiou Lytra 1997).

The above are examples from the data that illustrate the positive functions of code-switching between L1 and L2. In line with earlier findings, which have been quoted above, they show that alternate use of English and Cantonese in the English
medium classroom of Hong Kong can serve the positive functions of translating, explaining difficult concepts, building students' confidence and motivation, building relationship with students, negotiating with students, and talking in metalanguage. These functions are strategic in helping the students to understand the subject content taught in a foreign language. They enable the teachers to bridge the gap between the curriculum demands of an EMI school and the actual English proficiency of the students, without which it would have been difficult for both the teachers and students in the process of teaching and learning.

### 5.2.2. NEGATIVE FUNCTIONS OF CODE-SWITCHING

The previous section is a presentation of the qualitative analysis of the audio data on the classroom talk which show the positive functions of code-switching in the Hong Kong context. However, the analysis of the same set of data also shows that at times code-switching cannot serve these functions, or any other function. At times the mother tongue is used in a random and haphazard way that can be a hindrance to English language acquisition on the part of the students. Or it is used by the teacher tactically to address problems that arise out of the perceived shortcoming in his/her language proficiency or a momentary breakdown in thought process in the classroom. These findings on the negative functions of code-switching confirm what earlier researchers wrote (Jacobson \& Faltis 1990, Pennington 1995, Chick 1996, Arthur 1996; Martin 1999). The following is a presentation of some of the examples taken from the data.

### 5.2.2.1 RANDOM AND HAPHAZARD CODE-SWITCHING

From the data obtained in this study, it is found that some code-switching instances
are done very randomly without serving any communicative or linguistic purpose. The following excerpt taken from EPA2 in School B shows code-switching incidences of this nature.

## Extract 18: School B; EPA2

(The teacher was doing a survy on the demographic data of the class)
47 T: OK. Let's continue. Alright? And then da waahng tihn maih keui lak. Wait. fill it out horizontally
You are Chinese. Go gou go dou haih Chinese lai ga. Tihn maih keui la.
Those nine are also Chinese. Finish filling it out.
Da waahng tihn la. Gou go dou haih Chinese lai ama.
Fill horizontally. All nine are Chinese.

Non-Chinese. Neihdeih haih mhaih non-Chinese?
Are you non-Chinese?
Mouh yahn haih non-Chinese ama lidouh?
Nobody is non-Chinese here?

From the above extract, it can be seen that the teacher 'flip-flopped' (Jacobson and Faltis 1990) between Cantonese and English rather randomly and unsystematically for thirteen times in a very short discourse. The code-switching patterns observed here include both inter-sentential and intra-sentential switches, or in Muysken's (2000) terms, congruent lexicalization (and then da waahng tihn maih keui lak), alternation (You are Chinese. Go gou go dou haih Chinese lai ga) and also insertional switching (Mouh yahn haih non-Chinese ama lidouh). The flip-flopping approach refers to the random choice of language use in the classroom disregarding any linguistic or pedagogical use. The teacher is altogether free in switching languages in any manner. This random language behavior is often observed in informal conversation of bilinguals, but is highly questionable as to the effect it has on the students' language proficiency (Jacobson \& Faltis 1990). Also, different forms of code-switching, with
different intensities of interpenetration, tend to associate with different attitudes, including negative attitudes, and elicit different policy stances on the part of the policy-makers, including banning code-switching altogether from the classroom (Ferguson 2003). In my view, such a random use of code-switching will only desensitize the students' awareness of the use of L2, which can serve neither the pedagogical purpose of understanding the subject content nor acquiring the second language. If the teacher had spoken in simple English all the way to give the above instructions, the students would have had more exposure to the coherent use of the L2 in discourse. Therefore, I put this random use of code-switching under the category of negative functions.

### 5.2.2.2 EXCESSIVE USE OF L1 IN TEXT-INDEPENDENT TOPICS

The data obtained also confirmed previous observations about the use of Ll in text-independent topics (Johnson and Lee 1987) and topics not printed in the text used in class.

## Extract 19: School B; Geography

(The teacher was describing a picture on a test paper to the class)
124 T: OK. Two A. OK, let's go to two A. What kind of residential areas should these pictures be? OK, Two A should be low income residential area. Two B , high income residential area.

125 SS: Wo:::w!

## 126 T: Haih-mhai hou gingaa ne?

Are you very surprised?
Many of you write middle income residential area for 2A.
Mohng chingcho fuk touh. Nei gin-ngin di huk haih waaying gam ga?
Study the picture carefully. Do you see that the housing is like a Y-shape?
127 SS:Wo:::::w No!
128 T: Mhou gam gingdohng. Gam gingdohng dou goibin mdou go sihsat.

Don't get so emotional. Even you get emotional, you cannot change reality.
La. Tengjyu lobo. La. Nei louhyi yatdi yeh. Louhyi yatdi yeh.
Now, listen. Look, you pay attention to something, pay attention to something.
Tengjuy la. Godou mihnghin you yet jyoh waaying. Yihn-ji-houh keuhng
Now listen. There is obviously a Y-shaped block, and then behind it also buihouhh youh haih leuhng jyoh waaying gam ga. Tei chingcho sin. two Y-shaped blocks. First listen clearly.
Hou hingfahn a. Josoubihn. Josoubihn haih-mhaih gindou yat joh Very excited! On the left , on the left, don't you see a block that looks daaihhah haih luehhahp maih gamga. Yihnhouh nei. Godi cheungmun as though they are joined together. Then the windows are very close to each hou maht gamge.Aijyu chijyu. Yatlaat gamge
other, stick together, all in a row.

It can be seen here that the teacher started off with complete English sentences in asking questions on the question paper (124). Yet when she came to describing the picture of the public housing on the question paper, she switched to all-Cantonese (128). This is probably because English was not provided on the text, and perhaps she was not confident enough to describe a picture in a second language independent from the text. I would regard the use of the mother tongue here as probably serving a negative function, which would not help students in L2 acquisition. If the teacher had been able to use simple English to describe the picture, the students would have been able to have more exposure to the coherent use of L2 in discourse. And I would imagine they would not have much difficulty understanding the description in English as they had the picture in hand to help them. In this case, code-switching probably plays a negative function because it deprives the students of more chance to be exposed to the use of the L2.

### 5.2.2.3 FACE-SAVING AND STOPGAP DEVICES

There are instances in the data in which the teacher tried to switch to the Ll because she could not express a concept in L2. This confirmed what writers have put forward about the use of L1 as a face-saving device to cover up a perceived L2 incompetence on the part of teachers and students alike (Chick 1996; Arthur 1996; Martin 1999). In the same vein of argument, the use of Ll can be seen as a stopgap devise to keep the discourse going when the teacher cannot retrieve a word or an expression in L2, because the retrieval of the same word or expression in L1 will be faster ((Eldridge 1996). The following extract is an example.

## Extract 20: School B: EPA2

27.T: OK? Sh::. Alright. OK. So we just, we just find out the religion (1) the religion the::y, the::y eh (3) religion (1) religion (1), what is religion?
28. SS: Jonggaau!

Religion
29.T: Yes, the first one. Bullish. Bullish. Fahtgao. Yaohmouh yahn seun Buddhism. Is there any person who

## fahtgaau ge?

believes in Buddhism?

Turn 27 shows that the teacher first repeated the phrase 'the religion', paused for a second, then prolonged the syllable of the word 'they' twice, then paused for three seconds, then repeated the word 'religion' twice again with two one-second-pauses in between - all in one single clause. These linguistic devises of prolonged syllables, pauses and repetition of words can be seen as contextualization cues that indicate the teacher's difficulty in continuing the discourse or a momentary breakdown in thought process. This breakdown is probably a difficulty in retrieving the phrasal word
'believe in' which collocates with 'religion', because prolonged syllables and repetition of words and pauses all provided time for her to think. But still she failed to complete the interrogative 'what is the religion they believe in?'. Hence she tried to save face by asking the students a question connected to the theme of religion, 'what is religion?'. The students responded in Cantonese (28), which was then accepted as it was without being re-expressed in English (29). Then in the same turn, when the teacher continued in English, she failed to pronounce the English word 'Buddhism' properly and read it as 'Bullish'. It was not likely that this mispronunciation was a slip of the tongue because she repeated it twice, instead of correcting it as is often the case of a slip of the tongue. After she mispronounced it the second time, she tried to save face by switching to Cantonese in a question put to the class. My interpretation of this excerpt can be supported by what the same teacher answered when asked whether she uses Cantonese in class and when she uses it during the interview: "When I fail to express a sentence well in English, I would rather speak Cantonese, and then reorganize my sentence in English to express myself better" Appendix 5, Transcript b, turn 14). In this case, she could not express a thought in English, and mispronounced an English word. However, she did not re-express the phrasal word 'believe in' as the collocation to 'religion'. Neither did she correct her own mistake in pronunciation. Instead, she just left the sentence incomplete, switched to a question, or switched to Cantonese to cover up her linguistic inadequacy. In Chinese culture, face-saving is a very common coping behavior when one does something to cover up instead of announcing in public one's inadequacy or mistake. As a cultural practice, it cannot be labeled as good or bad. But from a pedagogical viewpoint, the students would not know the correct way of saying something in English if the teacher does not correct her own mistake immediately, or give the correct answer even at a later time. Therefore, I put this example of face-saving and stopgap devise under the category of
negative function of code-switching.

### 5.3 INFERENCE QUALITY AND TRANSFERABILITY OF THE FINDINGS

When we measure the inference quality of the above-mentioned findings that come up with a qualitative analysis of the data, there are several issues to be considered. The following discussion is mainly based on the model of Tashakkori and Teddlie (2003), and of Johnson and Turner (2003) which have been presented in Chapter Four on methodology.

Firstly, concerning the consistency of the research design to answer the research question, the use of purposive stratified sampling, non-participatory observation by audio-recording for data collection and conversation analysis for data analysis are thought to be appropriate tools. However, when the research design was put into execution, some shortcomings emerged. That an EMI school of distinctively low English proficiency could not be accessed and was subsequently replaced by a CMI school with just one subject using an English textbook and preparing students for a public examination in English would render the data incomplete in order to answer the research question on code-switching functions in content subject classrooms. However, it is suggested that this replacement would not affect the research outcome significantly because the teacher and students of this particular CMI classroom were actually facing the same difficulties as an EMI school of low English proficiency level: the gap between the students' L2 proficiency and the L2 curriculum, the L2 textbook and the public examination conducted in the L2. Moreover, the emphasis of the research objective in this study is the differential code-switching patterns used in student populations of different English proficiency level, and not on the CMI and

EMI school demarcation. Further, the same duration of lesson from this CMI school as the other two EMI schools was recorded, i.e., about two hours in order to make the three sets of classroom data comparable. Hence, the research design in this study is on the whole of high inference quality.

The second issue to consider is whether the data analysis techniques are sufficient to provide answers to the research questions, or whether there are other ways to interpret the data. Conversation Analysis is an appropriate analytic tool because it provides a mechanism whereby the classroom talk, including code-switching, can be examined in a turn-by-turn and contextual manner, and it provides contextualization cues which limit the way inferences can be drawn. Of course, there may still be a gap between what the researcher makes of the data in the process of analysis and the perception of the participants themselves, for instance, what is interpreted of an incidence of code-switching as that of a stopgap device might not be the actual intention of the teacher; it might be a case of reducing cognitive challenge for easy comprehension instead. However, such a gap has been narrowed by the interviews of teachers and students. The teacher who was thought to have used Cantonese as a stopgap device said in the interview that she would use Cantonese when she did not express well in English. In the same vein of argument, what was interpreted as a case of negative function of excessive use of code-switching also gained credibility by what teachers and students commented on the excessive use of code-switching: it would not be helpful in English language acquisition. Although there was no one-one mapping of the analysis results and the interview results, the interviews did boost up the inference quality of the inferences made of the qualitative analysis of the data.

For the yardstick of inference transferability, the limited sample and its non-random nature would not allow me to make any bold claims about the generalizability or the representativeness of the findings. However, as Tashakkori and Teddlie (2003) has pointed out, no inference in social sciences research can be fully transferable to all settings, populations or time periods. All inferences, however, are relatable to some settings, populations and time periods. Therefore, the inferences drawn from the data of these eleven classrooms about the functions of code-switching would also be transferable to some settings, some student populations during some time frames. Moreover, the inferences are largely congruent with what earlier researchers wrote on classroom code-switching functions, which have already been quoted in the analysis earlier in this chapter.

### 5.4 CONCLUSION TO CHAPTER FIVE

This chapter is devoted to the presentation of the findings from a qualitative analysis of the data collected from different lessons in different schools. The findings suggest that the lesson objective and lesson content influences the type of discourse style in class, and hence the language distribution and code-switching patterns. They also suggest that code-switching can serve pedagogical and communicative functions like translation, explanation, relationship building for solidarity and disciplining, boosting students' confidence and motivation for study, negotiation for lesson procedures and methodology, and metalanguage to process text and comment on language use, all of which are strategic in helping students to understand a lesson conducted in a foreign language. Without these devices, an English-only lesson would have been 'inhuman' (Johnson 1987), foreign, alienating, and beyond the comprehensive ability of many
students even in the EMI schools in Hong Kong. However, the findings also suggest that in spite of its usefulness, code-switching at times serves none of the purposes mentioned above. At times, code-switching can even be a stumbling block to English language acquisition when its excessive and haphazard usage has taken away the students' chance to listen to and use English in class. It also further restricts the students' exposure to the L2 to only text-related and curriculum-related formal content, which gives students the false impression of the nature of the L2 only as a formal mode of communication, and further takes away their motivation to use it to express their thoughts and feelings (Pennington 1995). Furthermore, when code-switching is used as a stopgap to cover up the teacher's mistakes or breakdown in thought process without being followed up with the correct answers, it takes away the students' chance of listening to correct expressions/pronunciations in English.

While the implications of the above findings in the Hong Kong education scene will be further discussed in the last chapter on conclusions and recommendations, the findings on the micro-linguistic aspect of code-switching will be presented in the next chapter.

## CHAPTER SIX: FINDINGS AND ANALYSIS 2: <br> QUANTITATIVE ANALYSIS OF TEACHERS' TALK AND <br> INTERVIEWS WITH TEACHERS AND STUDENTS

The research design of this study is composed of multiple methods carried out on different data sources: qualitative and quantitative analysis of data collected by non-participatory observation on different lessons conducted in three different schools; and interviews with individual teachers and students of the sampled lessons. The previous chapter has been a presentation of the qualitative analysis of the teachers' talk in different schools with the purpose of answering the first research question on the pedagogical/communicative functions of code-switching. This chapter is a quantitative analysis of the teachers' talk in the sampled lessons, with the purpose of answering the second research question on the linguistic patterns of the code-switches used by teachers found in different schools of different English proficiency levels of the student populations. The interview results from the teachers and students in the sampled classes will also be described, analyzed and discussed in relation to the Hong Kong education scene, so that the validity of the findings can be strengthened by investigating the issue using different data sources and different research designs.

### 6.1 FINDINGS ON THE LANGUAGE USE IN THE SAMPLED SCHOOLS

This section presents the data collected on the teachers' talk in the three sampled schools regarding the language distribution of English, Cantonese and CartoneseEnglish code-switching, the patterns of their code-switching and the sites of switch in intra-sentential code-switching. The definition of these terms and the method of data collection have been discussed in Chapter Four on methodology. In this chapter, the data is presented in tables and bar charts and analyzed in terms of the linguistic
properties of the code-switching teachers used in content subject lessons in EMI schools of student populations with varied English proficiency levels. The charts and tables are followed by description of observations in each case.

### 6.1.1 THE LANGUAGE DISTRIBUTION OF TEACHERS' TALK

Chart 1 is a presentation of the proportional language distribution of the teachers' talk in English, Cantonese, and English-Cantonese code-switching.

## Chart 1: The Language Distribution of Teachers' Talk


(X Axis: The sampled schools; Y Axis: The percentage of language use.)

Table 2 is a presentation of the data broken down into individual lessons.
Table 2: The Language Distribution of Teachers' Talk: Breakdown into Lessons

| School S | Subject | English |  | Cantonese |  | Code-switch |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Time | \% | Time | \% | Time | \% | Time | \% |
| School A | History 1 | 20'15" | 99.3\% | $0 "$ | 0\% | 8" | 0.7\% | 20'23" | 100\% |
|  | History 2 | 17'23" | 98.6\% | 9" | 0.8\% | $6 "$ | 0.6\% | 17’38" | 100\% |
|  | Geography | 21'57'' | 100\% | $0 "$ | 0\% | $0 "$ | 0\% | 21'57" | 100\% |
|  | EPA 1 | 39'58" | 100\% | 0 " | 0\% | 0 " | 0.\% | 39’58" | 100\% |
|  | EPA 2 | 26'54" | 100\% | 0" | 0\% | 0" | 0\% | 26'54" | 100\% |
|  | Total | 2hr6'27' | 99.7\% | $9 "$ | 0.1\% | 14" | 0.2\% | 2hr6'50" | 100\% |
| School B | History 1 | 18'30" | 99.4\% | 0 " | 0\% | 7" | 0.6\% | 18'37" | 100\% |
|  | History 2 | 22'39" | 89.4\% | 1'5" | 4.3\% | 1'36" | 6.3\% | 25'20' | 100\% |
|  | Geography | 28'40" | 61\% | 11'45" | 25\% | 6'42" | $14 \%$ | 47'7' | 100\% |
|  | EPA 1 | 14'40" | 97.6\% | 9" | 1\% | 13" | 1.4\% | 15'2" | 100\% |
|  | EPA 2 | 7'17" | 53\% | 3'20" | 24.3\% | \%'7' | 22.7\% | 13'44" | 100\% |
|  | Total | lhr31'46" | 76.6\% | 16'19" | 13.6\% | 11'45" | 9.8\% | lhr59'50" | 100\% |
| School C | Accounting | 17" | 0.2\% | 60'12" | , 50.8\% | 58'7' | 49\% | 1 hr 58'36" | 100\% |

## Observations on the Language Distribution of Teachers' Talk

a.) In School A, where the English proficiency level of the student population was the highest, the use of English in class during the recorded lessons was consistently high. In three lessons (Geography and EPA 1 and 2), it was $100 \%$ use. The lowest percentage was $98.6 \%$ in History 2.
b) In School C, where the English proficiency level of the student population was the lowest, the use of English in class was consistently low. It was $0.2 \%$ of the total
time taped.
c) In School B, where the English proficiency level of the student population was in between School A and B, the use of English in class varied from 99.4\% (in Historyl) to 53\% (in EPA2).
d) The use of Cantonese and Cantonese-English code-switches was the lowest in School A. It ranged from $0 \%$ to $0.8 \%$ and from $0 \%$ to $0.7 \%$ respectively.
e) The use of Cantonese and Cantonese-English code-switches was the highest in School C. It was $50.8 \%$ and $49 \%$ respectively.
f) The use of Cantonese and Cantonese-English code-switches varied in School B. It ranged from $0 \%$ to $25 \%$ and from $0.6 \%$ to $22.7 \%$ respectively.

### 6.1.2 THE PATTERNS OF CODE-SWITCHING IN TEACHERS' TALK

Chart 2 is a presentation of the number of incidences of the different patterns of code-switches used by teachers in various lessons in the three schools. The patterns of code-switches are categorized into word/phrase translation, tags like 'OK' and 'all right' before or after a Cantonese structure, intra-sentential code-switching and inter-sentential code-switching, explanations, examples of which have been given in Chapter Four. The general patterns of individual schools is also worked out.

Chart 2: The Patterns of Code-switching in Teachers' Talk

(X Axis: Patterns of code-switching; Y Axis: number of incidences of code-witching)

The following table shows a breakdown of the data in individual lessons in the three schools.

Table 3: Patterns of Code-switching in Teachers' Talk

| School | Subject | Word/ phrase translation |  | Tags <br> e.g. OK, alright |  | Intra- <br> sentential <br> switch |  | Inter- <br> sentential <br> switch |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Num | \% | Num | \% | Num | \% | Num | \% | Num | \% |
| School A | History 1 | 2 | 50\% | 1 | 25\% | 1 | 25\% | 0 | 0\% | 4 | 100\% |
|  | History 2 | 7 | 63.6\% | 0 | 0\% | 4 | 36.4\% | 0 | 0\% | 11 | 100\% |
|  | Geography | 0 | 0\% | 0 | 0\% | 0 | 0\% | 0 | 0\% | 0 | 0\% |
|  | EPA 1 | 1 | 50\% | 0 | 0 | 1 | 50\% | 0 | 0\% | 2 | 100\% |
|  | EPA 2 | 0 | 0\% | 0 | 0\% | 0 | 0\% | 0 | 0\% | 0 | 0\% |
|  | Total | 10 | 58.8\% | 1 | 5.9\% | 6 | 35.3\% | 0 | 0\% | 17 | 100\% |
| School B | History 1 | 2 | 100\% | 0 | 0\% | 0 | 0\% | 0 | 0\% | 2 | 100\% |
|  | History 2 | 5 | 11.9\% | 1 | 2.4\% | 3 | 7.1\% | 33 | 78.6\% | 42 | 100\% |
|  | Geography | 1 | 1.2\% | 4 | 4.7\% | 37 | 43.5\% | 43 | 50.6\% | 85 | 100\% |
|  | EPA 1 | 4 | 66.7\% | 0 | 0\% | 0 | 0\% | 2 | 33.3\% | 6 | 100\% |
|  | EPA 2 | 10 | 11\% | 13 | 14.3\% | \% 20 | 22\% | 48 | 52.7\% | \% 91 | 100\% |
|  | Total | 22 | 9.7\% | 18 | 8\% | 60 | 26.5\% | 126 | 55.8\% | \% 226 | 100\% |
| School C | Accounting | 2 | 0.1\% | 112 | 8.3\% | 1232 | 91.3\% | \% 4 | 0.3\% | 1350 | 100\% |

## Observations on the Patterns of Code-switching of Teachers' Talk

a) The use of tags (OK, all right) before or after a Cantonese structure was found to be inversely proportional to the English levels of the student populations. In School A, it was 1 incidence during the taped time of $2 \mathrm{hrs} .6^{\prime} 50^{\prime \prime}$, in School B, 18 incidences during the taped time of $1 \mathrm{hr} .59^{\prime} 50^{\prime \prime}$, and in School C, 112 incidences during the taped time of $1 \mathrm{hr} .58^{\prime} 36^{\prime \prime}$.
b) The use of intra-sentential code-switch was found to be inversely proportional to the English proficiency levels of the student population. In School A, it was 6
incidences, in School B, 60 incidences, and in School C, 1232 incidences.
c) Where inter-sentential code-switching was found, it was proportional to the English proficiency levels of the student populations. School B teachers switched more in between sentences than School C teacher did. There were 126 incidences in School B, and only 4 incidences in School C, even though the total time taped in School B and School C were more or less the same( $1 \mathrm{hr} .59^{\prime} 50^{\prime \prime}$ in School B and $1 \mathrm{hr} .58^{\prime} 36^{\prime \prime}$ in School C ).

### 6.1.3 THE SITES OF SWITCHES IN INTRA-SENTENTIAL CODE-SWITCHING

Charts 3,4 and 5 present the number of incidences of the various sites of switch in the intra-sentential code-switches used by the teachers in the three schools. Charts 6,7 and 8 are further breakdowns into different lessons in each school. The two major categories are English as the Matrix Code with Cantonese as the Embedded Code, and Cantonese as the Matrix Code with English as the Embedded Code. Under each category, the different sites of switches are further differentiated into switching at word level, switching at the phrase level and switching at the clause level, examples of which have already been given in Chapter One on background and Chapter Four on methodology.

## Chart 3: The Sites of Switches in Intra-sentential Code-switching in School A



Chart 4: The Sites of Switches in Intra-sentential Code-switching in School B


Chart 5: The Sites of Switches in Intra-sentential Code-switching in School C

(Chart 3-5: X Axis: The sites of switches in intra-sentential code-switches; Y Axis: The number of incidences of intra-sentential code-switches; MC: Matrix Code/ Host Constituent ).

## Chart 6: Intra-sentential Code-switches in Individual Lessons in School A



Chart 7: Intra-sentential Code-switches in Individual Lessons in School B


Chart 8: Intra-sentential Code-switches in Individual Lessons in School C

(Chart 6-8: X Axis: sampled lessons;
Y Axis: the number of incidences of intra-sentential code-switches).

The following tables (4-6) show the breakdown of the number of incidences of different sites of switches in intra-sentential code-switching in the different lessons in each school.

Table 4: Sites of Switches in Intra-sentential CS in Individual Lessons in School A

| Subject |  | English as MC |  |  |  |  | Cantonese as MC |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Word level |  |  |  | Clause | Word level |  |  |  | Phr. level | Cl. level |  |
|  |  | N. | Adj | Verb |  |  | N. | Adj. | Vb . | Prep |  |  |  |
| Histl | Num | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
|  | \% | $\begin{aligned} & 100 \\ & \% \end{aligned}$ | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 100\% |
| Hist2 | Num | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
|  | \% | $\begin{aligned} & 100 \\ & \% \end{aligned}$ | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 100\% |
| Geog | Num | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | \% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| EPA1 | Num | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | \% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| EPA2 | Num | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
|  | \% | 0\% | 0\% | 0\% | 100\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 100\% |
| Total | Num | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
|  | \% | 83.3 <br> $\%$ | 0\% | 0\% | 16.7\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% |

Table 5: Sites of Switches in Intra-sentential CS in Individual Lessons in School B

| Subject |  | English as MC |  |  |  |  | Cantonese as MC |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Word level |  |  | Phrase | Clause | Word level |  |  |  | Phr. level | Cl. level |  |
|  |  | N. | Adj | Verb |  |  | N. | Adj. | Vb . | Prep |  |  |  |
| Hist 1 | Num | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | \% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| Hist2 | Num | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 3 |
|  | \% | $\begin{aligned} & 33.3 \\ & \% \end{aligned}$ | 0\% | 0\% | 0\% | 0\% | $\begin{array}{\|l\|} \hline 33.3 \\ \% \end{array}$ | 0\% | $\begin{array}{\|l\|} \hline 33.3 \\ \% \end{array}$ | 0\% | 0\% | 0\% | 100\% |
| Geog | Num | 0 | 0 | 0 | 1 | 0 | 23 | 3 | 0 | 0 | 9 | 1 | 37 |
|  | \% | 0\% | 0\% | 0\% | 2.7\% | 0\% | $\begin{aligned} & 62.2 \\ & \% \end{aligned}$ | $\begin{aligned} & 8.1 \\ & \% \end{aligned}$ | 0\% | 0\% | 24.3 <br> $\%$ | $\begin{aligned} & 2.7 \\ & \% \end{aligned}$ | 100\% |
| EPA1 | Num | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | \% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| EPA2 | Num | 0 | 1 | 0 | 0 | 0 | 10 | 3 | 0 | 0 | 4 | 2 | 20 |
|  | \% | 0\% | 5\% | 0\% | 0\% | 0\% | 50\% | 15\% | 0\% | 0\% | 20\% | 10\% | 100\% |
| Total | Num | 1 | 1 | 0 | 1 | 0 | 34 | 6 | 1 | 0 | 13 | 3 | 60 |
|  | \% | 1.7\% | $\begin{aligned} & 1.7 \\ & \% \end{aligned}$ | 0\% | 1.7\% | 0\% | $\left\lvert\, \begin{aligned} & 56.7 \\ & \% \end{aligned}\right.$ | 10\% | \|l|l| | 0\% | $\begin{array}{\|l\|} \hline 21.7 \\ \% \end{array}$ | 5\% | 100\% |

Table 6: Sites of Switches in Intra-sentential CS in Individual Lessons in School C

| Subject |  | English as MC |  |  |  |  | Cantonese as MC |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Word level |  |  | Phrase level | Clause level | Word level |  |  |  | Phr. level | Cl. <br> level |  |
|  |  | N. | Adj | Verb |  |  | N. | Adj. | Vb . | Prep |  |  |  |
| Acct | Num | 1 | 0 | 0 | 6 | 0 | 1081 | 11 | 75 | 8 | 28 | 22 | 1232 |
|  | \% | 0.08 | 0\% | 0\% | 0.49\% | 0\% | 87.7 | 0.89 | 6.1 | 0.65 | 2.27 | 1.79 | 100\% |
|  |  |  |  |  |  |  |  |  | \% | \% | \% | \% |  |

## Observations on the Sites of Intra-sentential Code-switching of Teachers' Talk

a) The number of incidences of intra-sentential code-switching with Cantonese as the Matrix Code was inversely proportional to the English proficiency of the student
population. There was no incidence of intra-sentential code-switch with Cantonese as the Matrix Code in School A (see Table 4), whereas there were 1,225 incidences in School C (see Table 6). In School B, it ranged from 0 incidences (in Historyl and EPA1) to 36 incidences in the Geography lesson (See Table 5).
b) When intra-sentential switching was found in the school of high English proficiency, it was only in the form of English as the Matrix Code. In School A, $100 \%$ of the intra-sentential switching was in this category (see Chart 3).
c) The most commonly found site of intra-sentential switches (with both English as the Matrix Code and Cantonese as the Matrix Code) in all three schools was the noun at the word level (see Charts 3, 4 and 5).
d) The least commonly found site of intra-sentential switches (with both English as the Matrix Code and Cantonese as the Matrix Code) in all three schools was at the clausal level (see Charts 3, 4 and 5).
e) The number of incidences of the switching of nouns at the word level in code-switches with Cantonese as the Matrix Code was inversely proportional to the English proficiency levels of the student populations. There was no incidence of such kind of switch in School A (see Table 4), whereas in School C, there were 1081 incidences (see Table 6). In school B, it ranged from 0 incidence (in History 1 and EPA1) to 23 incidences (see Table 5).
f) Teachers in School B switched more at phrasal and clausal level in Cantonesebase sentences than teachers in School C did. It was an average of $26.7 \%$ of the different types of intra-sentential code-switch with Cantonese as the Matrix Code in School B versus 4.1\% at School C (see Table 5 and 6).

### 6.1.4 THE GRAMMATICALITY OF THE

## CODE-SWITCHING DATA COLLECTED

The code-switches found in the data collected revealed that teachers in the sampled schools on the whole observed the grammatical constraints of code-switching discussed in Chapter Three, i.e. the Equivalence Constraint, the Dual Structure Principle and the Matrix Code Principle.

The number of ungrammatical code-switch used by teachers in the three schools was almost insignificant. This was in line with the findings of Johnson's study on the bilingual teaching strategies of fifteen non-language teachers in five EMI schools, which disproved the allegation that 'Chinglish' (a mixing of the grammatical systems of Chinese and English) is used in the classroom (Johnson, 1987, p.104).

### 6.1.5 ANALYSIS AND DISCUSSION OF THE FINDINGS

## ON TEACHERS' LANGUAGE USE AND CODE-SWITCHING PATTERNS

From the data of the teachers' talk in the content subject lessons of the three schools A , B and C, it can be seen that Cantonese or code-switching of Cantonese and English were hardly used in School A, because the students there could understand English without any major problems. In spite of this, Cantonese was still used for explaining difficult terms or imparting the Cantonese equivalents of technical terms in school A , though intra-sentential code-switches with English instead of Cantonese as the Matrix Code was used, with the English sentence patterns being preserved in the discourse. In School B, where code-switching had to be used by teachers when communicating with students with intermediate English proficiency, inter-sentential code-switches,
and intra-sentential code-switches with English inserted at sites beyond the word level, (i.e. at phrasal and clausal level) were used besides sites at word level. In this way, students could be exposed to complete English sentences, or English structures that go beyond the word level. Inserting English nouns or compound nouns in Cantonese sentences was found most often in School C with the student population of the lowest English proficiency, who might have problem understanding English words strung together in phrases and clauses. Hence the teacher often adhered to the pattern of inserting single English nouns or compound nouns into the Cantonese base.

The findings revealed a continuum of code-switching patterns used by teachers among student populations of different English proficiency levels: from mainly inserting English words in Cantonese Matrix Code in School C of the lowest proficiency level, to inserting English words, phrases and clauses as in School B of the medium proficiency level, to using English as the Matrix Code and only English as the medium of teaching as in School A of the highest proficiency level. Based on these observations, I would like to draw the inference that students' English proficiency level was an important factor that teachers took into consideration in deciding on the amount and patterns of code-switching. The factor of students' proficiency also interacted with the factor of lesson objectives and lesson content in the decision-making process, which has already been discussed in Chapter Five. The factor of teachers' English proficiency level did not appear to be a deciding factor since teachers were found to have observed grammatical patterns of the L1 and the L2 when they switched codes. The significance of the few incidences where the L1 was used excessively and randomly, or used as a stopgap and face-saving device was minimal in the overall data of 1,593 code-switches collected from the three schools.

### 6.1.6 INFERENCE QUALITY AND TRANSFERABILITY OF THE FINDINGS

As in the qualitative analysis of the data in this study, I would think that the research design of sampling, data collection and data analysis were appropriate in answering the research question on whether there is correlation between the English proficiency levels of students and the linguistic patterns of the code-switches used by their teachers. However, some issues arose in the process of the execution of the research method regarding the inference quality and transferability of the research outcome.

As mentioned in Chapter Four on methodology, I had to make a second visit to School B to collect more code-switching incidences when I found that the first recording of the History and EPA lessons did not contain sufficient code-switching data for analysis (two incidences in history and six in EPA). I specified to the teachers upon the second visit that the purpose of the study was to find out how teachers used Cantonese to help students learn a subject in English, whereas I just mentioned upon the first visit that the study was on the medium of instruction. That I could obtain more code-switching data in the second recording of these two subject may be due to 'observer reactivity' (Denzin, 1989). As mentioned in Chapter Four, when the teachers in School B heard that the recording was for a study on the medium of instruction, they tended to adhere to the official guideline of using English all the time, but when they were told that the recording was to find out how teachers used Cantonese to learn a subject in English, they used more Cantonese and code-switches. However, whether the changes in the language distribution patterns and code-switching patterns were due to observer reactivity or due to differences in lesson objectives and content as mentioned in Chapter Five (section 5.1) is hard to judge. It can even be due to a combination of both factors since the teachers knew that the purpose of the recording
was to find out how the use of Cantonese could help students learn a subject in English, they may have recorded a lesson with the appropriate lesson objective and lesson content that necessitated the use of more Cantonese than usual, that is, talking about Chinese culture in the history lesson, and involving students in collective tasks of doing a survey in EPA2 and of checking a test paper in Geography..

In spite of this problem of observer reactivity in the data collection process, which could cast doubt on whether what was recorded in these lessons was actually what would have happened without the researcher's intervention, the inferences drawn from the data analysis and interpretation can be given greater validity by the answers given by teachers and students during the interviews, and also the qualitative analysis of the data by Conversation Analysis. One student interviewed mentioned that their teacher would use Cantonese to talk about 'Chinese things' (Appendix 6, transcript g, student from School A History Class, turn 14), which explains why more Cantonese was used for talking about Chinese culture in History2. One teacher said, 'It shouldn't be only the teacher who does all the talking; students should give response as well. But using English is a hindrance.' (transcript c, School B History teacher, turn 8). This explains why more Chinese was used to engage students' participation in EPA2 and Geography for the collaborative tasks of doing a survey and checking a test paper respectively. Conversation Analysis of the EPA 2 and Geography lessons also revealed that Cantonese was needed in getting students' involvement in these collaborative tasks, which was already discussed in Chapter Five, section 5. Therefore, with the convergence of results from both the qualitative and quantitative analysis of the same data, and from the data of different qualitative research methods, the probability of misinterpreting the data obtained due to the effect of observer reactivity can be reduced. The inference quality for the findings of this study can be increased:
students' English proficiency levels interact with lesson objectives and content to influence the code-switching patterns used by the teachers in the EMI classroom.

For inference transferability, the findings about the continuum of code-switching patterns in relation to different students' English standards can be relatable and transferable to some, but not all settings, since the inference transferability of social sciences studies is relative in nature (see Section 4.4.2, pp.121-122). Generalization is possible if the typicality or atypicality of the cases under study can be established after their salient features are carefully compared (Lecompte and Goetz, 1982).

### 6.2 FINDINGS ON THE INTERVIEWS WITH THE TEACHERS AND STUDENTS OF THE SAMPLED SCHOOLS

To further strengthen the validity of the findings from observational methods on the school sample, a different research method was carried out on a yet different data source. As discussed in Chapter Four on Methodology, a semi-structured interview study was carried out on individual teachers and students from the different lessons taped in the sampled schools to find out their views towards code-switching in general, code-switching in the classroom and the perceived pedagogical/communicative functions of classroom code-switching. In order to find out more about the code-switching patterns in the classroom, informants were also asked about their preferred type of code-switching pattern in relation to English language acquisition. Since the sampling process and background of these interviewees have previously been presented, this section is a description of the findings, followed by analysis, interpretation and conclusion. Altogether I interviewed seven teachers (three from School A, three from School B and one from School C) and eight students (three from

School A, three from School B and two from School C). Some verbatim reports of the interviews are included in Appendix 6. Others can be obtained upon request.

### 6.2.1 FINDINGS ON THE INTERVIEWS WITH TEACHERS AND STUDENTS

The recordings of the sampled lessons were played and transcribed. The answers given by both the teachers and the students were categorized under the different interview questions and described as below:

### 6.2.1.1 Attitudes towards Code-switching in General

All teachers and students interviewed except one in each case found the code-switching behavior of Hong Kong people acceptable and natural, because they were used to it or they did it themselves. The one teacher who held different ideas said that she did not like this behavior because she thought that the people who code-switched in their daily utterances might want to show off their knowledge of English or their social status. This view was not found in the students interviewed. The one student who did not accept code-switching only thought that it was strange to mix languages and that people should either talk completely in Cantonese or completely in English. One third of the students interviewed thought that it is fashionable to code-switch because English is an international language. One student said, 'I think these people are great and intelligent' (Appendix 6, Transcript h , student from EPA class, School B, Turn 2). None of the teachers interviewed mentioned these views.

### 6.2.1.2 Attitudes to Code-switching in the Classroom

All students interviewed except one said they preferred a mix in language
medium, yet with one condition, that is, it cannot be too much. The reasons they mentioned were mainly that Cantonese would help them understand difficult things, but they needed to learn more English, improve their oral and listening English, to prepare for tests and examinations in English. The following quote from a student was representative of the others: 'I would rather to have her explain difficult things in Cantonese. That's no problem. But most of the time, in English only, without mixing Chinese, so that we can get used to it. And our English will be better in listening or in writing' (Appendix 6, Transcript $i$, student from Geography Class in School B, Turn 10). The exceptional case was the student who said he preferred to have only English as the medium of teaching because they had to prepare for higher education.

Teachers expressed similar qualified statements about personal preference to classroom code-switching as the students. One teacher said, 'It's OK to use mixed sentences in casual talk, but we shouldn't do it in class.' (Transcript b, EPA teacher from School B, Turn 4). Another said, 'I think it all depends on the students' ability.' (Transcript d, Geography teacher from School B, Turn 8). All teachers interviewed except the one from the CMI school said that they used mainly English, and a little Cantonese as the medium of teaching in class. The CMI school teacher and students gave the same answer that Cantonese was preferred as theirs was a CMI school.

### 6.2.1.3 When to Use Code-switching

Teachers as well as students from EMI schools mentioned that Cantonese was used to explain difficult terms, for talking about personal matters, emotions and interpersonal problems, for casual talk (the student in Geography class in

School B said, 'for unimportant matters, for example, announcements', Transcript i, Turn 14), for talking about local current affairs or local history (the student in History class in School A said, 'for Chinese things', Transcript g, Turn 14), for checking examination papers, for faster explanation of ideas, for disciplining students, and for telling jokes when students feel bored. What was not mentioned in students' answers was that one teacher said she would use Cantonese when she did not express well in English (Transcript b, School B, EPA teacher, Turn 14). Another teacher said she deliberately used Cantonese when she wanted her students to know the Cantonese equivalent of the English technical term, which was also not mentioned by students.

### 6.2.1.4 Sites of Switches

Two teachers said they tried to adhere to inter-sentential code-switching and keep the two languages apart. The rest said they used both inter-sentential and intra-sentential code-switch. This was different from the answers given by students, five among eight of whom said that their teachers used complete sentences in English or Cantonese, and only switched in between sentences.

### 6.2.1.5 Any Difference between Mixing within and in between Sentences?

All except one teacher were of the view that separation of languages was better for students' English language learning. The reasons given were mainly more opportunities for students to be exposed to the English sentence patterns which would in turn facilitate listening, oral and grammar usage, whereas mixing languages in one sentence might bring in interference of the L1 structure into the L2, English. The one teacher who said that mixed sentences was better did not give any answer on English language learning, but stressed
the importance of easy comprehension and the usual practice of Hong Kong people to use set English terms in their Cantonese utterance. The teachers' answers were on the whole in line with those of the students. All students from EMI schools said they preferred to have their teachers speak in complete English or Chinese sentences due to the reasons mentioned by their teachers. One student said, 'Because if we remember the English sentence structures, the Chinese words will suddenly pop up, then it's difficult. If she uses English all the time, then it's easier for memory' (Transcript g, student from School A, History Class, Turn 34). One said, 'Chunks of English... yes, you can understand more about grammar, vocabularies. If a bit of English and a bit of Chinese, you can't learn much'. ( Tanscript h, student from EPA Class, School B, Turn 26). Still another student said, 'I would rather she speaks chunks of English sentences. If she mixes Cantonese into English sentences all the time, we cannot write complete sentences in our writing' ( Transcript $i$, student from Geography Class, School B, Turn 24). The reasons given by students to support separation of languages that was not mentioned by teachers were that they had to prepare for tests and examinations conducted in English, and also the need to think in English. Those from the CMI school, on the other hand, preferred to listen to mixed sentences in class due to easy comprehension, although one expressed that in doing so, they may adopt Chinese grammar when writing in English during tests or exams.

### 6.2.1.6 Educational Background of The Teachers Interviewed

All teachers interviewed (including the one from CMI school) received an English education from EMI schools, and all had university degrees in the subject they taught.

The implications of the above findings will be discussed in the next section.

### 6.2.2 ANALYSIS AND DISCUSSIONS OF FINDINGS FROM INTERVIEWS

Students showed a more favorable attitude than their teachers in their views towards code-switching in general. They regarded code-switching as trendy, modern and clever, which was not mentioned by teachers at all. However, when it came to the use of code-switching in their own classroom, they had more reservation and set conditions on the amount used, because, as a few students pointed out, too much of it would not be helpful for them in learning English, or preparing themselves for higher education. The teachers, too, showed reservations about the use of code-switches. They tried not to, but had to in actual practice, depending on such things as the students' standard. Therefore, the opinion of both the teachers and students gives more credibility or inference quality to what I have suggested in the qualitative analysis on the functions of code-switching in the EMI content subject classroom: excessive or haphazard use of code-switching serves a negative function in students' L2 acquisition.

The other point of convergence between teachers and students was that they all agreed on the functions of classroom code-switching: for explaining difficult parts of the curriculum, for disciplining, for talking about personal matters, for casual talk, etc. Among these functions, one teacher mentioned the need for Cantonese in talking about current affairs and local history. Similarly, one student mentioned the need to use Cantonese in talking about 'Chinese things'. This gives more inference quality to what I have proposed in the previous chapter that in History 2, the talk about

Chinese culture would necessitate the use of more Cantonese on the part of the teacher due to the close relationship between language and culture.

Another function of code-switching mentioned by the teacher also boost the inference quality of what I have proposed in the previous chapter. The geography teacher in School B mentioned that she would use Cantonese for checking test papers (Appendix 6 , transcript d, turn 10), which would be faster and easier (turn 12). In the recording of the geography lesson, it was found that Cantonese and code-switching took up about half of the instruction time for checking the test paper. The reason I have proposed is: the teacher wanted to have more involvement from her students in a collaborative effort to go through the test paper, so that nobody (especially those with weaker English) would be left out in the learning process.

The point of divergence between the teachers and students was on whether the teachers switched languages within sentences or in between sentences. Only two teachers said they tried to adhere to complete English or Chinese sentences. The rest said they both mixed within and mixed in between sentences. In contrast, most students said that their teachers kept the two languages apart and spoke in complete English or Chinese sentences. The reason I propose for this discrepancy is that junior form students tend to idealize their teachers. This was especially the case when the sampled students were mostly in their first year of study in secondary school. Since they thought speaking in complete English sentences was preferred to mixed sentences (which can be seen from the interview answers given by students in Appendix 6), they would like to think that their teachers did this in class, which, however, was not the actual case. In actual practice, teachers used both inter-sentential and intra-sentential code-switching in class. As teachers knew what they were doing
more than their students thought they were doing, their answers should be more reliable.

Concerning the preference for the sites of switching, all EMI students and the majority (six out of seven) of EMI and CMI teachers were in favor of switching in between sentences rather than within sentences, that is, inter-sentential rather than intra-sentential switching. The reasons for this preference given by both the teachers and the students were consistently for the facilitation of English language acquisition. From this convergence of answers, I would like to make the inference that inter-sentential code-switching is a preferred mode of code-switching to intrasentential code-switching as far as the facilitation of L2 acquisition is concerned. Of course what I have stated is just an inference, or an assumption. The opinions of seven teachers and eight students can never prove this assumption, because they may be wrong in the same direction, and the number of the informants is too small for me to generalize this finding to other schools in Hong Kong. However, that the answers given by the teachers and students converged has indeed presented a stronger case to argue in favor of inter-sentential code-switching than if their answers diverged. This inference also echoes the opinion of Jacobson (1990), who asserted that there should not be intra-sentential code-switching in the classroom which was not a good model of bilingual education when he advocated his New Concurrent Approach mentioned in Chapter Two. Having said the above, I need to point out that one EMI teacher and the CMI students were not in favor of inter-sentential code-switching due to the difficulty in understanding complete English sentences on the part of the students. This is another issue to be considered when teachers decide on the way English and Cantonese should be mixed in the classroom. After all, English language acquisition in the content subject lesson should not be promoted at the expense of understanding
the subject taught.

### 6.3 CONCLUSION TO CHAPTER SIX

While Chapter Five is a presentation of the findings on the qualitative analysis of the functions of code-switching teachers used in the sampled lessons, this chapter has presented the findings of the quantitative analysis on the linguistic properties of the same code-switching data, as well as the findings from another qualitative method carried out, that is, interviews of teachers and students from the sampled lessons on the theme of the functions and linguistic properties of classroom code-switching..

Quantitative analysis using pre-coded categories showed varied linguistic patterns of the code-switches used by teachers in schools of different students' English proficiency levels: intra-sentential code-switches with English words inserted into the Cantonese base code in School C of the lowest students' English proficiency level, both intra-sentential code-switches with English words, phrases and clauses inserted in the Cantonese Matrix Code and inter-sentential switches in School B of the medium proficiency level, and intra-sentential switches with Cantonese words inserted into English Matrix Code and only English in School A of the highest level. Based on these findings, I am making the inference that the students' English proficiency level is one of the factors that influences teachers' decisions on how much mixing of the two languages they do in the EMI content subject classroom, and also how they mix them.

The findings on the interviews carried out on teachers and students help strengthen the inference quality of the assumptions made based on the qualitative analysis of the
data presented in Chapter Five. First, both teachers and students confirm the proposed functions of classroom code-switching. Code-switching is helpful in bridging the gap between the demands of an English curriculum and the reality of the varied English proficiency levels of the student populations. However, too much of it would have negative effects on English acquisition because it takes away the opportunities for students to be exposed to the English language in discourse. The interview results also give credibility to what I have written about the need for more Cantonese in a lesson in which Chinese culture is discussed, or in which more students' involvement and interaction is required in doing a research together or going through test papers. Therefore, I propose that the lesson objective and lesson content is another deciding factor on whether the L1 is used, and also how the L1 and the L2 are mixed, in other words, whether code-switching is used and its linguistic patterns.

The interview results also reflected that both teachers and students interviewed were in favor of inter-sentential code-switching over intra-sentential code-switching as far as English language acquisition was concerned. The reasons they gave were of two categories: maximum exposure to the complete sentence structure of the English language preserved in inter-sentential code-switches and the undesirable effect of mother tongue interference likely to be brought along by the mixing of the structures of two languages in one sentence in intra-sentential code-switching.

The implications of these findings to the HK education scenario will be discussed in the next chapter on conclusions and recommendations.

## CHAPTER SEVEN: CONCLUSIONS AND RECOMMENDATIONS

This concluding chapter will look at how the far the research objectives have been reached and research questions answered, and make recommendations to the language policies in Hong Kong based on the findings. Last but not least, the research design will be evaluated and future improvements and research directions will be suggested.

### 7.1 RELEVANCE OF THE FINDINGS TO THE RESESARCH OBJECTIVES/ AND RESEARCH QUESTIONS

To reiterate what was stated in the introductory chapter, the objective of this study is to find out the functions of code-switching in the content subject lessons of Hong Kong EMI schools and the different patterns of code-switches used by teachers associated with student populations of different English proficiency levels. The research questions are:

1. What pedagogical and communicative functions does code-switching serve in the content subject lessons of the Hong Kong EMI schools?
2. Is there any difference in the code-switching patterns used by the teachers with student populations of different English proficiency levels? If yes, what are they? And what insights into classroom code-switching can the findings give?

### 7.1.1 THE ANSWERS TO THE RESEARCH QUESTIONS

The present study in many ways confirm what have been put forward about the pedagogical and communicative functions of code-switching such as translation,
explanation, relationship building for solidarity and disciplining, boosting students' confidence and motivation for study, negotiation for lesson procedures and methodology, metalanguage to process text and comment on language, etc., all of which are strategic functions to help students in EMI schools understand a lesson conducted in a foreign language. On the other hand, the study reveals that in spite of its usefulness, code-switching at times serves none of the purposes mentioned above and, when used randomly or excessively, or as a face-saving and stopgap device, can take away the students' exposure to coherent use of English, or to correct English in usage and pronunciation.

Findings from the classroom data revealed that only-English and intra-sentential code-switching with English as the Matrix Code were found most often in the student population of the highest English proficiency level; inter-sentential code-switching and intra-sentential code-switching with insertion of English words, phrases and clauses into a Cantonese base structure, in the student population of the medium English proficiency level; and insertion of English words in Cantonese base structures, in the student population of the lowest proficiency level. The different amount of code-switching used also reflected the different lesson objectives and content. Therefore, I have proposed that in these sampled lessons, students' English proficiency level played an important role in deciding on the amount and patterns of code-switching used by the teachers. This factor also interacted with the factor of lesson objectives and content to influence the amount and patterns of code-switching.

Data collected from interviews revealed that both the teachers and students from the sampled lessons preferred to have most of their lessons done in English, with Cantonese for difficult parts which might present comprehension problems to students with weaker English. They also preferred their teachers to adhere to inter-sentential switching whereby the complete English sentence structures were preserved for the facilitation of English language acquisition.

### 7.1.2. SOME INSIGHTS INTO CODE-SWITCHING IN HONG KONG

From the above findings in the code-switching behavior of teachers with student populations of different English proficiency levels, we can gain some insights into the issue of code-switching in Hong Kong. First, how much Cantonese should be used actually depends on the English proficiency level of the student population concerned and the lesson objectives and content. Teachers as well as students from EMI schools interviewed found the use of code-switching necessary in helping students to understand a subject taught in English. However, too much Cantonese could hinder the process of language acquisition. Second, more Cantonese needs to be used if the lesson objective is about Chinese and local culture, or if it is a collaborative task like doing a survey to encourage students' participation. Third, since certain patterns of code-switching are associated with student populations of different proficiency levels, perhaps teachers should have the sensitivity to gauge their students' level of English proficiency, and decide on the way code-switching should be used accordingly to give their students more exposure to English spoken beyond the word level when they are ready for it. The continuum of code-switching patterns shown in the findings can perhaps serve as a model for code-switching behavior: from inserting English words
in Cantonese Matrix Code, as in School C, to inserting English phrases, and English clauses as in School B, to using English as the Matrix Code before using only English as the medium of teaching as in School A, depending on the progress of the students' English ability.

The majority of the teachers as well as students interviewed expressed the view that keeping the two languages apart in inter-sentential switches rather than mixing them in a sentence can help expose students to complete English sentence structures, which in turn helps in English listening and speaking skills, because students can get used to the English sentence patterns, whereas intra-sentential code-switching with Cantonese as the Matrix Code may invite mother language interference of writing or speaking English with Chinese grammar. Of course, the teachers and students interviewed might be wrong in the same direction. But the convergence of their answers give more inference quality to the assumption that inter-sentential code-switching is indeed a preferred mode of code-switching to intra-sentential code-switching for English language acquisition, and should be used when the students are ready for it in their proficiency level.

What have been suggested are by no means proved hypotheses due to the limited and non-random sample size and the qualitative nature of the overall research design: exploratory research questions and interpretive research answers. Though only a small step taken to look into the complex issue of code-switching and bilingual education in the Hong Kong context, this research study, however, is an attempt to investigate into the micro-linguistic aspect of code-switching, which is often a neglected area of study in Hong Kong.

### 7.2 LIMITATIONS OF THE STUDY

There are limitations in sampling, data collection and interpretation in this study which, if rectified, could have increased the inference quality of the research.

The first limitation of this research study concerns sampling. The three sampled schools are all homogeneously Christian schools, although they differ in students' levels of English proficiency. As pointed out in the chapter on methodology, I have tried different schools and could only gain access to these three Christian schools in the end. The other limitation in sampling is that School C is a CMI school using English textbooks and having English tests/ examinations in one particular subject (accounting), instead of a truly EMI school. Although the School C accounting classroom resembled an EMI classroom of student population of low English standard in that there was a gap between the students' English standard and the demands of an English curriculum in both cases, the code-switching data collected would have been more representative of EMI school populations had I been able to get data from a truly EMI school with the lowest English standard in students' intake territory-wide.

The second limitation lies in data collection. In removing myself from the lesson in the non-participatory observation method of data collection, I might have missed
some valuable non-verbal communication in the classroom that would affect my interpretations of the code-switching functions. Though I am now still in favor of non-participatory observation with a view to reducing the effects of researcher's reactivity on the teachers concerned, video-taping the lessons might have been a better method of gaining a more thorough understanding of the classroom processes than just audio-taping them as what was done in this study.

The last limitation of this study lies in the qualitative interpretation of the data obtained by observation. I cannot be absolutely certain that my interpretation of the functions of code-switching were the same as what the teachers intended them to be, though I have tried to support my interpretations with the tools of Conversation Analysis and the interview results from teachers and students from the sampled lessons. Inference quality of the interpretations might have been improved by member checking, which is 'the process of having the individuals review statements made in the researcher's report for accuracy and completeness' (Gall et al, p. 464). However, I decided not to use this method because my statements on the negative functions of the code-switching used by the teachers such as stopgap and face-saving devices might embarrass the teachers, and due to the Chinese cultural characteristic of saving face, their comments again might not truly reflect reality. This is the reason why I have not dealt with this issue. Instead, I have used another qualitative method, that is, semi-structured interviews to boost the inference quality of the interpretations, which have been discussed in Chapter Five and Six.

### 7.3 THE WAYS AHEAD

### 7.3.1 FOR POLICY-MAKERS AND PRACTITIONERS

The present situation of school language policy in Hong Kong is that the Government has been stressing the compensatory and negative aspect of code-switching, while scholars and practitioners have been stressing the strategic and positive aspect of it. Therefore the former calls for the banning of code-switching and the implementation of English-only practice in the hundred-strong EMI schools; and the latter call for a flexible use of code-switching in the classroom instead.

Seen in the light of the findings in this study, both sides have failed to understand the complex phenomenon of code-switching in its totality. To embrace only the negative side of code-switching in an English-only policy in EMI schools is unrealistic and impractical for many students and a handful of teachers even in the EMI schools, as even teachers in School A and B in the sample had to resort to Cantonese to various degrees. However, to embrace only the strategic side of code-switching in a totally laissez-faire and flexible policy for individual schools and teachers would leave students at the mercy of their teachers, some of whom would mix languages in a haphazard and excessive way that would hinder the natural and healthy language acquisition process of an EMI non-language lesson.

What I am trying to propose is that code-switching should be used in a controlled manner, a view that resonates with writers like Atkinson (1987), Harbord (1992) and Butzkamm (1998). This has a very significant bearing on teacher training. Non-language subject teachers in EMI schools must be trained in language awareness and usage, so that they can exploit the positive and strategic functions of code-switching while minimizing its negative and compensatory ones. They should also be alert to the kind of code-switching pattern which can be most beneficial to the type of student audience they have at a certain point in time, so that code-switching can be a building block, instead of a stumbling block to English acquisition. The continuum of different degrees of second language penetration revealed in the different schools in this study may perhaps shed some light on the way the two languages should be made with student populations of different English proficiency levels. The Government has already taken one big stride in introducing the benchmarking test and providing various kinds of training for English teachers (Education Commission no. six, 1997) . It is high time that the non-language teachers should be given appropriate training to maximize the positive effects of the EMI classroom in facilitating English language acquisition for students.

### 7.3.2 FOR RESEARCHERS

Given the scanty amount of research studies on the micro-linguistic aspect of
code-switching and its impact on English language teaching and learning, it is hoped that more can be done in this aspect, especially in establishing some causal relationships between English language acquisition and code-switching patterns, which this study has not been able to do. This would entail research methods of a more longitudinal and experimental nature, for instance, action research projects (Ferguson 2003).

Closely related to research on code-switching would be research of different bilingual models mentioned in Chapter Two. It is hoped that more studies can be carried out to find new models other than the present late immersion model (Marsh et al, 2000; Education Commission Report No. 6, 1995) to bring the maximum benefits to students in language acquisition, such as, which subjects to be taught in English and which in Cantonese in the same school; or when should be the best time to introduce an only-English curriculum to bring the optimal effects to students..

Last and not least, it is hoped that there can be future studies on the way to train content subject teachers' awareness on the medium of teaching, so that they can be equipped with the language and communicative skills that will benefit students linguistically and academically.

Only with the right trainers and the right training models can Hong Kong students improve their English without sacrificing their right to learn the non-language subjects in a comparatively friendly and equitable environment where English
education is no longer the commodity for only the elite, nor a mere means to maintain the status quo. And only when Hong Kong students are equipped with the necessary English proficiency level can Hong Kong retain her competitive edge in the commercial and technical forefronts in the face of challenges from the big cities in Mainland China and other Pan-Pacific regions.

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## APPENDIX 1: THE CANTONESE LANGUGAE

## I INITIAL CHART

|  | Unaspirated | Aspirated | Fricative | Nasal | Liquid | Semi- <br> vowel |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Bilabial | b | p | f | m |  | w |
| Dental/ <br> Alveolar | d | t | s | n | l |  |
| Velar/ <br> Glottal | g | k | h | ng |  | y |
| Labio- <br> Velar | gw | kw |  |  |  |  |
| Alveolar <br> affricates | j | ch |  |  |  |  |

## II. FINAL CHART

| a | e | i | o | u | y |
| :--- | :--- | :--- | :--- | :--- | :--- |
| aai | eng | iu | oi | ui | yu |
| aau | ek | im | on | un | yun |
| aam | ei | ip | ot | ut | yut |
| aap | eu | in | ong | ung |  |
| aan | eung | it | ok | uk |  |
| aat | euk | ing | ou |  |  |
| aang | eui | ik |  |  |  |
| aak | eun |  |  |  |  |
| ai | eut |  |  |  |  |
| au |  |  |  |  |  |
| am |  |  |  |  |  |
| ap |  |  |  |  |  |
| an |  |  |  |  |  |
| at |  |  |  |  |  |
| ang |  |  |  |  |  |
| ak |  |  |  |  |  |

III. TONE CHART

|  | Rising | Level | Falling |
| :---: | :---: | :---: | :---: |
| High | a | a | (a) |
| Mid |  | a |  |
| Low | ah | ah | ah |

## IV. A GLOSSARY OF SOME CANTONESE GRAMMATICALCATEGORIES

1. Aspect (ASP) - A grammatical distinction involving whether an event is seen as complete ( as in the Cantonese perfective form -jo), or ongoing, as in the English progressive form -ing, and Cantonese -gan.
2. Auxiliary (AUX) - A class of words used together with a verb and carrying a grammatical function, e.g. wuih (will).
3. Classifier (CL) - A class of words used to 'classify' nouns by shared features such as shape or function, e.g. tiuh for elongated objects as in tiuh yu (fish)
4. Particle (PART) - A word which does not belong to any of the major word classes but plays a grammatical or communicative role. Verb particles, such as dou indicating completion of an action, appear after the verb, while sentence particles, like a added to questions for politeness, come at the end of the sentence.
5. Possession (POSS) - Possession is often indicated by the word 'ge' in Cantonese. It comes before a possessed noun.
(Extracted from Yip, V. \& Matthews, S., 2000)

APPENDIX 2: THE CANADIAN IMMERSION PROGRAM
French Immersion in Ontario: A Description of Some Programs to Grade 8

| Board of Program Education | Board <br> Terminology | Grade <br> Program <br> Begins |  | ted <br> ch at <br> de 8 |
| :---: | :---: | :---: | :---: | :---: |
| Peel <br> County | Late Partial <br> Immersion | $8$ | Grade 6-core French <br> ( 30 minutes daily) <br> Grade 7-core French <br> ( 20 minutes daily) <br> Grade 8-55-70\% of <br> Curriculum in French |  |
| LATE Toronto <br> IMMER-  <br> SION  <br>   | Late <br> Extended | $7$ | Students have varying core French backgrounds prior to entering programs and have accumulated from 90-315 hours of core French instruction to end of grade 6 Grade 7-25-30\% French Grade 8-40\% French |  |
| Ottawa | Late-Entry Immersion | $6$ | K-grade 5 - core French <br> (20 minutes daily) <br> Grade 6-100\% French <br> Grade 7-50\% French <br> Grade 8-50\% French | 2145 |
| Carleton | Late-Entry Immersion | 7 | K-Grade 6 -core French <br> (20 minutes daily) <br> Grade 7-80\% French <br> Grade 8-80\% French | 1845 |
| EARLY <br> PARTIAL- Elgin <br> IMMER- Country <br> SION | Early-partial Immersion | 1 | Grade 1 to 8-50\% French | 3330 |
| EARLY Ottawa, TOTAL Carleton IMMERSION | Early <br> Immersion | K K | K to Grade 1-100\% French Grades2 to 4-80\% French; Grade 5 -65-80\%French;Grades6 to8-50\%French | $\begin{aligned} & 4450- \\ & 4985 \end{aligned}$ |

## APPENDIX 3: TRANSCRIPTION CONVENTIONS IN

 CONVERSATIONAL ANALYSIS| T: | teacher |
| :--- | :--- |
| S1: | identified student (Student 1) |
| S: | unidentified student |
| S3? | probably Student 3 |
| SS: | several or all students simultaneously |

S1: //yes//
S2:// yes// simultaneous, overlapping talk by two speakers
(+)
$(++)$
(1) (2) (3)
(())
((unintelligible)) indicates a stretch of talk that is unintelligible
::: colons indicate that the speaker has stretched the preceding sound or letter; the more colons the greater the extent of the stretching.
${ }^{\wedge} \mathrm{v}$ pointed arrows indicate a marked falling or rising intonational shift; placed immediately before the onset of the shift.
$=\quad$ if inserted at the end of one speaker's turn and the beginning of the next speaker's adjacent turn, it indicates that there is no gap at all between the two turns.
Because
underlined segment indicates marked stress
(hhh)
$><$
a pause of between 0.1 and 0.5 of a second a pause of between 0.6 and 0.9 of a second a pause of one, two or three seconds respectively comment about actions noted in the transcript, including non-verbal actions
laughter tokens
'more than' and 'less than' signs indicate that the talk they encompass was produced noticeably quicker than the surrounding talk.
(Extracted from Wooffitt R. 2005 and Markee, N. 2000)

## APPENDIX 4 : ENGLISH PROCIENCY LEVELOF THE STUDENT POPULATIONS OF THE SAMPLED SCHOOLS.



English Subject Group Percentile Results School Intakes in 2003-4 School Year


## English Subject Group Percentage Results of School Intakes in 2004-5 School Year



## APPENDIX 5: TRANSCRIPTION OF SAMPLED LESSONS

## HISTORY 2 IN SCHOOL B

1.T... .Second, it is the place to keep the dead body of a....
2. SS: Pharaoh!
3.T: Of a Pharaoh. Who was a Pharaoh?
4.SS: The King of Egypt.
5.T: Sh....Chanlaihkihng.
6.SS: The King of Egypt.
7.T: So can I live in a pyramid?
8.SS: No!
9.T: Any chance? Any hope? Yes? No? OK! Firstly, now remember you have to meet two requirements. So don't kill me tonight and then send me to the pyramid , OK? Felix,
What we learned last time? Sit down, OK. Be prepared for your lesson. So this is the biggest pyramid found in Egypt with 150 meters height. I also remember Miss Mutt suggest today the location of the pyramids. Where did the Egyptians build the pyramids? Aam....Louhjunming la. Where did they build the pyramid? In....where did they build it? Ha....Louhjunming? In which part of Egypt? Which part? Where is it? Louhjunming? No idea! Who knows that? Did they build the pyramid wherever they liked?
10.SS: No!
11.T: No. Wohnghaakming le? Where did they build it? $\operatorname{In}(1)=$
12.SS: = Desert=.
13.T: =In desert. What is desert?
14.SS: Samohk!

Desert
15. T: Samohk! OK, that's where you can find lots of sand - in desert. How to

Desert
spell desert?
16. SS: D-e-s-e-r-t
17. T. D-e-s-e-r-t.
<Teacher wrote on blackboard.>
What about this one?
18. SS: Dessert!
19.T: What is dessert?
20.SS: tihmban!
dessert
21.T: Yes. So don't tell me in the test that they built pyramids in desserts, OK? I'll ask you if that's a cookie, or a fruit tart. OK. Desert and dessert. Why in desert? Why in desert? Chahnga....Luhkgajun! Why in desert?
22. SS: ((unintellible))
23.T: They had no more place to build it? Why did they need more place? Because ....
24.S: Because the pyramid was so big
25.T: Because the pyramid was so big, then....
26.S: They need more areas.
27.T: OK, they needed more area, more land to build the pyramids. Then why in desert? They might build it near the river. So it was close to them. Why? Or why not? Goumeihyeung la.... Why not in a land along the river?
28.S : Because the land along the river they need for farming.
29.T: They need for?
30.S Farming.
31.T: Farming. OK, sit down.Wow, that's another revision question. OK. They built pyramids in deserts. So that's a river we found in Egypt. Can you name this river?
32.S: Nile River.
33.T: Nile River?
34.SS: River Nile.
35.T: River Nile, OK. In Egypt. They build pyramids in desert area. I agreed with you. In Egypt, this is the fertile land along the river. This is fertile, so this is for....
36.S: farming.
37. T: So this is for farming. OK.
(( An announcement was brought in the class by the janitor.))
Lohjengjong tuhnghohk. Ching neih gin Jeung Sir.
Classmate Lohjengiong, please go to see Mr.Cheung. OK.
Now two choices. A....three choices. OK. Think about that.
((Teacher drew on the blackboard.))
If you like, you can also make this drawing into your notebook. Three options.
Three choices. One, building along the river. I think most of you would object me, because you say this is the land for farming. Why, then where should I build my pyramid? In place two or place three? Both were desert lands. Where should I build it?
38.SS: Three!
39. T: Three? Why three?
40.S: Far away...
41.T: Pardon?
42.S: Far away from the river.
43.T: It is far away from the river. Oh, two is far away as well. Two is far away as well. Maybe I went here.
((Teacher pointed at the blackboard.))
This is two. Why three is better. Yes?
44.S: Because Pharaoh was afraid that someone maybe steal the jewelry which in the pyramid.)
45.T: So then why should I build in three but not two? Two is far away, so the thief would not spend too much.... would not travel days to my pyramid.
46.S: Three is....there has a river between place two and place three. So they may not go to place two.
47.T: Oh but people could still live on this bank. They could live on this side. So why they choose to build three but not two. Yes?
48.S: Because three is nearby the river.
49.T: Near the river.
50.S: No, nearby the sea.
51.T: Nearby the sea.
52.S: Near the sea. So they can get stones from other places.
53.T: OK. And also place two is close to the sea as well. Open your textbook to page....page what? Page sixty-eight. Page sixty-eight. These are the good guess. These are the big stones they used to build the pyramid. Finally they were too heavy to carry the stones. So they used sea transport. It's better. Look at page sixty-eight. We can also find Red Sea here. So if this is the reason, then they should use ships to transport the big stones. But that is not true. Yes?
54.S: Because there had stones.
55.T: There had stones? There were stones, not there had. OK? There had is Chinglish. There were stones. Where can you find stones in deserts?
56.S: Anywhere.
57.T: Anywhere. OK. If you look at page sixty-eight, page sixty-eight. Picture five, there was also a big passage, I can also find stones there. No, wrong guess. Aa...give you some hint. Pharaoh in Egypt was very powerful. Why, why Pharaoh was powerful? You must have learned that. Wohnggokbun!
58.S: He was god.
59.T: He was god? People believed he was God. That's why he was powerful. And he was very rich. He should be buried far away, so that the thief would not be able to go there easily. So area two, location two and three could be a choice.

Location three is better.
The next question is: why did they want to keep the dead body of Pharaoh into a pyramid? Why? In fact before putting the dead body into the pyramid, they had to do one thing. They need to prepare the dead body into a mummy. As we learned it today, it's a mummy. Why? Why did they need to prepare the dead body? What's...
60.S: They believe after a long time, he would be life.
61.T: He would be....he would be....after a long time, he would live again. We would live again. So I have to keep my body well. Otherwise when I wake up some years after, I find I have no head, no hand, or no left foot or right foot. How to keep my body into a good condition. That's why making the body into a mummy. Na....this is the head. They believed he would live again. That's why they choose to build a pyramid. You know why. He would live again.
What's the direction? This is the (+)east, and this is the (++)west. This is the third hint. Why did they build the pyramid in the western bank of the river?
62 S1: Sai.
West.
63.T: Sai? Sai matyeh a sai?=

West? What is west?
64 S 1 : =seuhng saitin=
Rise to the western sky
$65 \mathrm{~T}:=\mathbf{O}(+)$ seuhng saitin. yea ${ }^{\wedge}(1)$ this is what we believe,
Rise to the western sky
the Chinese believe. Matyeh haih seuhng saitin a?
What's rise to the western sky?
66 S2: Sei.

## Dead.

67 T: Sei? Gam jikhaih dimyeung a?

## Dead? So what does this mean?

68 S2: // Guisai.//

## Back to the west.

69 S3:// tintongh.//
heaven
70T:Yes, we would go to the other world. OK? In the, in the west. OK?
Souwingcheuhng, Yes, sit straight! Thank you. Yes, we believe, when we die, the Chinese die, we'll go to, to the heaven OK, in the ( + ) following (1)in the west, in the west. The Egyptians believed in the same way. Yes! In the west, this is the west. They believe, this is where the sun ( + ) sets. What's
sunset?
71 S1: Yahtlohk!

## Sunset!

72. T: Yes, the sun go back home to sleep, OK? OK? When the sun sets, then their soul will be traveled together to the western world. This is what they believe. Yahtlohk le, ngohge lihngwuhn jauh gen-jyuh yatlohk le jauh heuidou By sunset, my soul will follow the sunset to go to
${ }^{(+)}$ngohge saitin la. That's why they built it in the western bank but not the my western sky
eastern side, OK.
The soul could go to what place to live? The upper world, the other world,OK? That's why they choose to build it in number three but not number two. Can you suggest one more advantage to build the pyramid in the west and under the desert? One more reason why they build it in the desert. This is a good reason. So one is for....farming, OK? So Can you find one more reason why they build it in the desert? The journey is.... is?
73.S: Dry.
74.T: OK. It was dry.
75.S: It was corrosive.
76.T: It was .... corrosive. OK, this is a Geography term. Yeah....you find the weather in the desert very dry, so this can keep the dead body in the pyramid in a better condition. OK? This is dry. Now, there are some advantages here. Of course there are some disadvantages here if they built it in one, OK? So this is advantages.... So this is for faming. Fertile land for farming.

## <Teacher wrote on the blackboard.>

Can you think of one more reason why they would not build the pyramid along the river? This is what you have learned before. Near the weather, they built the pyramid along the river.
77. S: The water.
78.T: OK, what about the water?
79.S: Faahnlaahm. Floodings.
80.T:What is faahnlaahm in English?

## Floodings

81S: Flooding!
82. T: Yes, there would be flooding here! Every year. If you say there is flooding once a hundred years. OK, I don't care. But there was flooding every year, for how many months?
83.S: Four months.
84.T: Yes, about four months. There was flooding every year. If you build the pyramid there, what would be the result? Try, English. Jaowihngtong. What will be the result? Stand up first. It will be....
85.S: Destroyed!
86. T: It will be.... It will be....Aa, yes, your classmate has a word to help you.
87.S: Destroyed.!
88.T: Destroyed. How to spell destroyed.?
89.S: D-e-s-t-r-o-y
90.T: D-e-s-t-r-o-y. What is destroy in Chinese?
91.S: Powaaih.

Destroy
92.T: Yes, powaaih. So can you say in complete sentence? If they build the pyramid along the river, it will be destroyed....it will be destroyed by the ...flooding. OK? So this is how you make up your choice. There will be advantage of building pyramid there. There will also be disadvantage of building pyramid there. So if you compare the two, you'll find building the pyramid here is the best. If you have two million dollars with you, where would you buy a new flatt? Will you buy the Soho Town? Green Town? Or in Tsimshatsui? In Central? So you can think of both sides. If you buy a new flat in Tsimshatsui, what will be the advantages? Tsimshatsui. It will be good for shopping Jimsajeuih yauh matyeh houchyu a, gen-hoi?. Alex!
What advantages will the flat in Tsimshatsui have, near the sea?

## 93.S: Mouh dihk hoigeng.

94.T: O....yauh yat go mouh dihk hoigeng. Excellent sea view. OK? What more? Has a unrivalled sea view

## 95.S: Gaautung fongbihn.

Convenient transport.
96.T: O yes, good transport. Gaautung fongbihn.

Convenient transport.
So what are the disadvantages? (2) It will be very noisy. Yes, of course. // If we have two million dollars// pardon?
97.S: //Air pollution//
98.T: Yes, air pollution. You just learned it from Geography. How large do you think you can buy with two million dollars in Tsimshatsui.
99.S: Wow!
100.T: Wow. Neihdeih wow matyeh a? Daaih dihng sai a....gaan uk?

What are you yelling at? Big or small....the house?
101.S :Sei.

Small.
102.T: Genghaih sei la.... Miss Lo wah. What about Yuenlong?

Of course small....Miss Lo said.
103.S: Big.
104.T: A big one! That means you have to spend more time in transport.

So we can learn a lot from the Egyptians. Jauwihngch:::eung, what can we learn from the Egyptians? Are you feeling well today? (1) Or just sleepy? Not feeling well? Isn't , eh?
((to class)) > Siusik yauh-mouh gin keuih dabo a kauhsin?<
Did you see him playing ballgame in the recess just now
105. SS: Paaubouh ama. Paau-jo chin-gei maih a!

Running. He ran for more than a thousand meters!
106. T: Ok, ngoh bei neih fan do saam fanjung. Mouh lobo ha.

I let you sleep for three minutes more. No more, eh?
Joi fan jauh puih-faan bei ngoh lak.
Sleep more, you return the time to me
107.SS: Ngohdeih dou yauh paau.

We ran too
108. T: Neihdeih dou yauh paau a? Ngoh ji neih hou jungyi seuhng lihksi tohng You ran too? I know you love to attend history lesson, soyi mwuih fangaau ga. OK, what can we learn from the Egyptians? so you won't sleep.
They made wise choice by comparing the advantages and disadvantages.
That's why they built the pyramids in the deserts. So ten years after, ten years after, if you really have two million dollars, then you can consider where to buy a new flat. Of course don't forget to invite me to visit the new flat, OK? Is it clear why they built a pyramid? Where did they choose to build it? The location, and by the way, please go to your textbook page eighteen. Page eighty. Now there are two more ideas you need to pay attention to. Page eighty shows how to build a pyramid. Of course without the time of the DHL, they need to spend more time, right?
109: SS: (hhh)
110. T: Have you ever watched the advertisement of the DHL? OK, with the help of the helicopter, transport, they can build the pyramid with a short time. But now, they need to take longer time, OK? Ten years, more, they take more time, much more. So when did the Pharaoh start to build the pyramid?
111.S: Became the emperor.
112.T: Yes. Once they became the emperor, became the king, became the Pharaoh. Otherwise when he died, he found the pyramid cannot be finished, OK? Where, where could they find the workers to help him to build the pyramid?

## 113.S: From Egypt.

114.T: From Egypt, of course, the Egyptians. Wow. Why did the Egyptians have so many time, spare time to help him?
115.S: No farming!
116.T: Because there was no farming! Good, you're so smart. How many months, I should say like this, could they work all year doing the farm work? No. How many months did they spend on farming?
117.S: Three months.
118.T: No, longer than that. Six to seven months, or half a year. The other half year they could do nothing because there was.... Flooding. So if they could not do the farm work, what did they do?
119.S: Build the pyramids.
120.T: Yes, in the months of flooding, they had to help the Pharaoh to do lots of public works, like building the roads, building the pyramids. Could they say I don't want to work?
121.SS: No!
122.T: No, why not? They believe Pharaoh was a::
123.S: god.
124. T: Yes, g-o-d. If they believed Pharaoh was a god, what happened? If they believed Pharaoh was a god, why? they would obey the god. If they disobeyed the god, what happened?
125.S: They die!
126.T: They died! Punished! OK? That's why they obeyed the Pharaoh and built the pyramid. On page eighty, there are how many steps? Four steps. We just go over them very quickly. One is using wooden boats to transport the large stones. That's what you can find in a DHL advertisement. And then they can make use of the river to transport the large stones. How large is the stone?
127.S: Very big!
128. T: Very big! How big it is? How big? How big is the stone?
129.SS: //very big!//
// big, big !//
130.S: Lukh jeung toi gam daaih!

As big as six table
131.T: Lukh jeung toi gam daaih a

As big as six table
133.SS: (( unintelligible))
133.S (hhh)
134. T: How heavy is a stone?
135. S: Two tons !
136. T: Two-two tons! How heavy is two tons?
137.SS: ((unintellible))
138.S: Leuhng deun.

Two tons
139. T: Leuhng deun jikhaih geichuhng jek? Yat deun yauh geido chin haak a?

How heavy is two tons? How many kilograms does a ton have?
Geido chin-haak a? Yat deun yauh (2) geido chin-haak a?
How many kilograms? One ton has how many kilograms?
140. S: Yat chin-haak.

## One thousand grams

141. T: Yat chin-haak?

One thousand grams?
142. SS: (hhh)
143. T: Mh-haih a. Yat deun yauh (1) Yat chin go chin-haak.

No. One ton has one thousand kilograms.
Ah, how heavy is a bag of rice? How heavy is a bag of rice? How heavy is a bag of rice?
144.SS: ((unintellible))
145. S: Elephant.
146.T: Aa.- Big El- Ele:::phant. Gam Jeuhng paaih laih a ligo.

Golden Elephant brand this is.
How heavy is a bag of rice? Five -
147.S: Five kilograms.
148.T: Right, five kilograms. If you don't know how heavy is a bag of rice, that means you seldom help your mother. Next time I should send you to the supermarket to buy two. So, how big would be the stone for building the pyramid?
149.S: Yih-baak baau maih.

## Two hundred bags of rice

150.T: Yih-baak baau maih. Yat gauh daaihsehk yauh leuhng deun la. Two hundred bags of rice. One big stone has tow tons.

Yat ji leuhng deun. Yat deun jikhaih yauh geido baau maih a?
One to two tons. One ton is equivalent to how manv bags of rice?
151.S: Yih-baak baau maih.

Two hundred bags of rice
152.T: Yi-baak baau maih. Jikhaih duhng heilaih bin-jo buhng cheuhng la.
Two hundred bags of rice That means two hundred bags of rice lumped
Ling yih-baak baau maih.
together making a wall
153.S: Waa! Mouh honehng!

Wow! Impossible
154. T: Yauh mouh gin-gwo a? Yauh mouh sou-gwo a? Gam wan yat yaht....

Have you seen this? Have you counted? Then find a day... dangjahngaan wan yat go heui Waihhong sou. Yat go heui
later on send one person to Wellcome Supermarket and one to
Wahyeuhn sou.
Wayun Supemrarket to count.
155.SS: ((unintellible))
156.S: Ngoh dou heui a!

I would like to go too
157.SS: ((unintellible))
158. T: SO you can imagine how big a stone (2) was today.

Last time, Miss Lo also suggest, how many stones did it take to build a pyramid? Two point three million. So, two point three. If one stone equals to two hundred bags of five Kg rice. That means how many bags of rice it needs to build a pyramid? Times ....Yi baak sihng yih yi baak saam-sahp. Two hundred times two hundred thirty.
Jikhaih geido go lihng a?
That means how many zeros?
Go sahp.baak.chin.maahn.sahp-maahn.baak-maahn. Gam
One,ten, hundred,thousand, ten thousand, a hundred
jauh dengyu yih saam lihng lihng lihng lihng lihng. Ngh-go lihng jauh hei yat go pyramid laak. thousand, a million. That equals 2300000 . Five zeroes for a pyramid.
159.SS: Wow! Hou do a!

Wow! So many!
160.T: Sihk sehng sai dou sihk mh-yuhn a!

You spent a whole life and couldn't finish eating them!

So that was how to build a pyramid. They spent lots of efforts in doing so. And then pulling the last stones rocks up to the slope and finally take the polished stones to make the surface flat, OK? Finished! Lots of time! I want to talk about something new today. Making a mummy. I've no time to do my research, OK? Then take a look at page eighty-one. Eighty-one, OK. You find a group of Egyptians begging something. I beg you. What's the meaning of I beg you? Beg.
161.S: Yiukaauh.

Pleading
162.T: Ngoh kaauh neih la. Miss Lo. I beg you not to give me so much homework today! OK. I beg you.
What were they begging the Pharaoh, OK? O my Pharaoh, please let me go. I won't tell anybody about this secret. I've worked here for twenty years!
163.SS: Wow!
164.T: I've never done anything wrong. I miss my family, my son. Must be growing up now. If you let me out, I can see him, please! Why, why do you think the Pharaoh would not let him go?
165.S: Saat-jo keui .

Killed him.
166.T: Yes, why, why do you think the Pharaoh would kill him?
167.S: Yauh beimaht haih yahmbihn.)

There's secret inside.
168.T: Yauh matyeh beimaht haih yahmbihn a?

What secret is there inside?
169.S: Yauh geigwaan.

There's secret passage.
170.T: Dimgaai yauh geigwaan a?

Why was there secret passage?
171.S: Hou do bouhmaht haih leuiminn.

Many treasures inside.
172.T: Yes, because they put lots of treasure in the pyramids. Use English, OK?
<The teacher was setting up the screen>
Who is taller than me?

## 173.S: Meih chaap jai ga. <br> It's not yet plugged.

174.T: OK. Who is taller than me?
175.S: Go go dou gou-gwo neih la.

Everybody is taller than you.
176.T: Really? Louhjenyong! Is he taller than me? Is it true?
177.SS: Yes!
178.T: Thank you. Because in a pyramid, you can find lots of treasures. Why? Why were there so many treasures inside a pyramid? For what reason? We should question again. Why treasures inside the pyramid. Why? Wohngwihngsi, why? Why were there treasures inside.
179.S: They will not die.
180.T: Now, remember, why did they put the dead body into the pyramid? Why did they make the dead body into a mummy. Yeah, they want to live. Yes.
181.S: Faanlaih yauh dak sai. For use when coming back.
182.T: Faanlaih yauh dak sai. In English! For use when coming back.
183.S: They will live again.
184.T: So when they live again, what happens? They have money and lots of things. Yes! That's why they would put treasures inside. Can you see the gold mask?
< The bell rang.>
Oh, I cannot continue the story. This was found in Tutankaman's tomb, OK? He was a very young Pharaoh. This discovery of this tomb was in Britain because it had never been robbed before. So when the historians, archeologists found this tomb, they found lots of treasures inside. This is a poster showing the gold mask. You can measure how big it is. How valuable it is. OK? So they need to kill the workers so that they will not tell the secrets of the Pharaoh. Where, where did they put the treasures in? In pyramids. Now, this is only in the first part of the story. You can imagine. Of course this is about the building, the building of the pyramid. But it is also related to religion. What is religion in Chinese? You learned that.

## 185.SS: Junggaau.

Religion.
186.T: Yes, seunyeung ge junggaau. Why did they need to build the big pyramid? religious belief.
It was not to build a big house, but because of religion. The religion was....they would live in another world. Next time when you study the mummy, this is also related to religion. So you find all these are inter-related. OK, the last question. Do we, the Chinese, share similar belief of the Egyptians? Yes or no?
187.SS: Yes!
188.T: Evidence! Evidence! Do we believe in the life after death?
189.SS: Yes!
190.T: Yes! How do you know?
191.S: Cheuhn-chi-wohng!

Emperor Chin!
192.T: Yes, Cheuhn-chi-wohng a. Bing-mah-yung a. Yes, they are in Chin's tomb! Emperor Chin, Terra Cotta Warriers.
What about nowadays? Do we believe in the same thing?
193.SS: No!
194.T: No? Think of others? Yes or no?
195.SS: Yes!
196.T: Evidence! Yauh matyeh jenggeui a?

What evidence is there?
197.S: Siuheung.

Burning incense.
198.T: Siuheung gam dim a?

Burning incense. So what?
199.S: Bei yeh keuih sink.

Give him food to eat.
200.T: Mh-sai oh-chen keuih la. Haih-mai a? Bei di yeh keuih sihk-ha sin dak ga. Johng yauh le?
Cannot starve him, right? Give him something to eat first, right? Anything more?
Seiyahn wuhn yauh di matyeh yihsik a ? Nihn-nihn dou yauh siu di yiji a.
What are the rituals for dead people? There're burning of papers every year. Yat sei jauh siu ga daaih che.
Burn a big car once somebody is dead.
Ngoh hai yijipou gindou houdo sauteih dihnwa a, bohaaih a, gameboy a.
I saw many mobiles, sports shoes, gameboy in the paper shop.
Siu gam do yeh jouh mat a?
Why burn so many things?
201.S: Hai hahbihn yauh dak sai.

For use below.
202.T: Hai hahbihn yauh dak sai.

For use below.
Sihng jeung mahjeuktoi dou siu bei keuih.
The whole Majoh table is burned,
Juhngyauh geido go yanh a?
together with how many people?
203.S: Saam go.

Three.

## 204.T: Saam go. Dimgaai mh-siu sei go a? Daih-sei go haih bingo? <br> Three. Why not four people? Who is the fourth one?

## 205.S: Jihgei!

Oneself!
206. T: So we share similar beliefs, right? OK, the last question. The Egyptians made the dead bodies into mummies. Turn to page eighty-two, we can see the steps. Do we the Chinese believe things like that in similar ways?

## Junggwokyahn yauh-mouh jouh seungchih ge yeh le? Gam neih lam-ha

 lobo.Do Chinese do similar things?
So you think about it.
Gam ngohdeih hawuhn fangaai lak. Gam li fo syu hou waan ga.
We'll continue next time. This lesson is very interesting.
Mji ngoh seung dihng Miss Ma sueng a ...
We don't know if Miss Ma or myself will teach.
batgwo ha yat chi ngohdeih gaijohk.
But next time we'll continue. OK. Time's up. Have a revision, OK? Class dismiss, OK?
Ngohdeih gamyaht liyat tohng haih luhkyam ga.
Our lesson today has been recorded.
207SS: Ha! What!

- THE END OF THE LESSON

1. T: OK, testing. Now, sh::: Now I just want to pay attention. I want you pay attention. We, we just start with the population survey, OK before the holiday, we have finished the worksheet of population. And then there will be the chart showing out the population structure in Hong Kong. But before I just discuss with the structure, discuss the structure with you, I would like to refer to the survey first. Can you turn to the survey, population survey, and we do within the classroom. Alright? Can you turn into this sheet? Use your ballpen or pencil to fill in it. Now let's, I just want to find out, OK? Can you just do it together?
With the survey, gam ngohdeih yatchaih jouh go tonggai laak
so we do statistics together.
Survey, wun- mh- wun dou a ? OK? Dak- mh-dak? OK.
find it or not? Ready?
Now according to the survey there are male and female So within our class, within our class only. So the survey is just refer to, one C. So conduct a survey in one C and complete the following table. And then let's do it together Yatchaih jouh lo bo. Age group, OK (1). Eleven or below, hold up your hand.
Let's do it together.
Eleven or below hold up your hand.
2. S1: Matyeh male?

What is male?
3. T: Male. Naahmjai a. jouh mat a?

Boys! What happen to you?
yihga ngoh mahn hah, yauh-mouh yahn sahp-yat sui waahk yih-hah ge?
Now $I$ ask, is there any person eleven years or below?
4. S2: Yauh!

Yes!
5. T: Yauh a ? (hhh) Saileih wo (1)yauh-mouh? Mouh ama
There is? $\quad$ That's great Is there? No?

There is? That's great Is there? No?
Gam mh-haih yuhnhun lo, yatchaih jouh survey.
So isn't that a circle? Let's do the survey together.
Yauhmouh yahn sahp- yat sui waahk yih-hah ge, yauhmouh a, youhmouh a.
Is there any person eleven years or below? Is there any? Is there any?

| Yauhmouh a? | Yauh dehng mouh a? | Mouh ama? | OK. Sahp-jih sui ge? |
| :--- | :---: | :---: | :---: |
| Is there any? | Yes or no? | No? | Twelve years old? |

Sahp-jih sui gei ngohdeih dou dong haih matyeh a? Dou dong sahp-yih a. We also regard twelve years something as what? Also as twelve.
Sahp- yih suigei dou dong sahp-yih. Sh::: batyuh heisan la. Twelve something is also regarded as twelve. Sh:::Rather stand $u p$.
Ngoh geng gai cho a.
I fear calculate wrong.
Heisan, sahp- yih sui gei. Sahp- yih sui gei meihdou sahp- saam sui ge
Stand up. Twelve something. Twelve something but not yet thirteen.
Geido a? OK. Gau go tuhnghohk. Chohdei.
How many? Nine students. Sit down.

## 6. S3: Gau go <br> Nine

7. T: Yi...houchih mhji bo. Yih, sei, luhk, baat, gau go. Aam.

Eh..seem to be more. Two, four, six eight, nine, Correct
Mhgoi sai. Sh:::OK tinh la. Thirteen or above....
Thank you. fill it out.
Thirteen or, eh.. gamchi mh-hou la. Taai-do yahn la. This time no good. Too many people.
Thirteen or above. Sahp- saam sui waahk yihseuhng ge. Thirteen years or above.
Gam mh-haih gaam-jo keuih lo. Naahmjai a. Ngoh yihga jehnghaih gong.
So isn't it to deduct it? I'am now only talking about boys.
Mh-haih gong gen neuihjai e. Naahmjai e. Yauh geido go naahmjai e.
I am not talking about girls. Boys, how many boys?
How many?
(( unintelligible))
8. S1: Yauh yih-sahp-yat go naahm gaam-faan gau go jikhaih sahp-yih go There are twenty one males, deducted by nine, means twelve.
9. T: Sahp-yih go, hou.

Twelve. Good.
Sh::: sahp-yih waahk yihseuhng ge naahmjai keih-heisan (1).
boys who are twelve or above, stand up.
Sahp-saam dihng sahp-yih a?
Thirteen or twelve?
Sahp-saam waahk yiseuhng ge keih-heisan. Sh:::.
Those who are thirteen or above, stand up.
10.SS: Sahp-yih go !

Twelve people!
11.T: OK. Twelve, alright. Sit down.

OK, girls, OK, female, eleven or above, no , eleven or below. Girls, female, girls.
12.SS: ((unintelligible))
13.T: Sh:: eleven or below. You're below? No? OK. Eleven or below - zero.

Twelve or something. Age twelve or twelve something.
Age twelve or twelve something. Sahp-yih sui waahk sahp-yih sui gei ge. Twelve or twelve something.

## 14.S2: Sahp-saam go. <br> Thirteen.

15.T: Thirteen? OK. Fill in thirteen. OK. OK. Thirteen or above. That should be nine. Is that OK? Alright. That should be nine. Is that OK? So totally, can you fill in the total number? Total number?
16.S1: Twenty-nine dihng geido a?

Is that twenty-nine?
17.T: O you just write down. O sorry. Total? What is the total number?
18.S2: Thirty-two.
19.T: Yes. But how about nine plus twelve? Thirteen and nine?
20.S1: Thirty-three!
21.T: Yes. According to:::thirty
22.S1: Three!
23.T: Thirty-three?
24.S1: One girl is absent!

## 25.T: OK I think include the absentee. Geimaaih go absent ge tuhnghohk. Syun lak. Include the classmate who is absent. Count it.

Gam yinggoi chyuhnbouh haih seisahp-yih yahn . seisahp. So should be forty-two persons altogether.

Seisahp-saam dihng seisahp-yih yahn a?
Forty-three or forty-two persons?
26.S2: Seisahp-saam!

Forty-three!
27.T: OK. Alright. OK. So we just, we just find out the religion (1) the religion.. they:::they:::eh:::religion (1) religion:::religion, what is religion?
28. SS: Junggaau!

Religion
29.T: Yes, the first one. Bullists. Fahtgaau. Yauhmouh yahn seun fahtgaau ge? Buddhism. Is there any person who believes in Buddhism?

Ngohdeih hai total dou jouh. Sh:::
We work it out at the total.
Jouh cheuhngsai di la. Ngoh jauh yiu neih jihgei hou la. Dimgaai ne?
Do it in more detail, I will ask you to do it yourself. Why?
Yanwaih yuhgwo yihga..wah..ngoh juhngyiu tai-hah go gou go ..go
sahp-saam go,
Because if now (1) wa:::I still should see those nine, those thirteen persons, haih jouh fahtgaau dihng matyeh lak. Li go laibai jinoih le, neih jauhyiu are Buddhists or what.

Within this week, you will ask
mahn- sai di tuhnghohk bo.
all those classmates.
30. S1 Jan ga?

Really?
31. T: Haih a. tai ha bingo jouh dak. jeui hou. Jeui jeunkok Yes. See who does the best, the most accurate.
32. S1: Yihga jouh.

Do it now.
33. T: Yihga jouh a.? ngoh yihga bei neih jouh ne, neih ho-mh-hoyi wan dou::

Do it now? I let you do it now, can you find:::
jikhak mahn dou na?
ask immediately?
Hou la. Gam a, hou lak, jeuisingogau go.
Good. In this way, OK, the first nine, Faaifaaichuichui la. Sahp-yat sui ge naahmjai...mouh la? quick! Eleven-year-old boys...no?
Sahp-yih sui ge, heisan la. Sahp-yih sui ge, heisan, johk- go mahn lak.
Those who are twelve, stand up. Twelve years old, stand up. Ask everyone.
OK, we take the:::We are, we are nine, we have nine. OK
34.SS: ((unintelligible))
35.T: Hou la. Go gau go naahmjai luimihn bingo haih fahtgaau ge? Good. Who among those nine boys are Buddhists?
Da waahng tai lo bo. Mouh yahn. Lihng la. Faai-di se la. Yihga. Look horizontally. No person. Zero. Write quickly, now!
Douhgaau ge?
Taoists?
36. SS: (hhh)
$\begin{array}{ccc}\text { 37. T: Douhgaau? Mouh la. Lihng la. Catholic? Catholic? } \\ \text { Taoism? } & \text { No. } & \text { Zero. }\end{array}$

Yauh-mou yahn tinjyugaau? Mouh.
Any person is Catholic? No.
Protestant? Protestant ne, jauhhaih geidukgaau.
means Protestantism.
Protestant. One, two, three, four, five, six, six Protestants. Luhk go.
Six.
Wai, neih tinh na. Tinh gen la?
Hei, you fill this. Filling?

## Bingo ga?

Whose?
38. SS: (hhh)
39. T: Deuimhjyuh a. Ngoh lo-jo bingo bun syu a? //Deuimhjyuh, Fai-di- tinh//

Sorry. Whose book have I taken by mistake ?Sorry, fill in quickly.
40.S? // Houhbinh ga !//

From the back!
41.T: Aaiya! deuimhjyuh, deuimhjyuh. OK.OK, and then Muslims, Wuihgaau.

Oops! Sorry, sorry. Islam.
42.SS: (hhh)
43. T: Zero.
44.S2: Chehgaau !
cult!
45.T: Others. Keihta ge gaau. Mouh la. Yauh-mouh a? Is there?

Other religion.
No. Is there?
46.S2: Mouh-gaau!

No religion!
47. T: Mouh ama? Keihta....yi. Gamyeung a?

No? Other.... Oh. Like this?
Yi:::yuhgwo keihta jauh dong::: gam haih dong neihdeih haih keita lo bo
Hey, if others will be regarded...then you will be regarded as others.
Gam saam go mhaih keihta lo? Others....yauh di....Sh:::mhaih a
So aren't the three others? Some... Oh no
Yauh di yahn houchih fangau gam ge yeung ge, mouhyeh jouh a?
There are some people who look sleepy. Nothing to do?
If you're so sleepy.Are you:: are you::feeling well? What happens to you?
Haih-mhaih mhsyufuhk a?
Are you not well?
Mhaih a, mhaih gam neih cho hou di hou-mhou?
No? If no, then could you please sit better,?

Mh-haih houchih fangaau gam hou-mhou? OK. Let's continue.
Can you not look like sleeping?
Alright? And then da waahng tihn maih keuih lak. Wait.
fill it out horizontally
You are Chinese. Go gau go dou haih Chinese laih ga. Tihn maih keuih la. Those nine are also Chinese. Finish filling it out.
Da waahng tihn la. Gau go dou haih Chinese laih ama.
Fill horizontally. All nine are Chinese.
Non-Chinese. Neihdeih haih mh-haih non-Chinese?
Are you non-Chinese?
Mouh yahn haih non-Chinese ama lidouh?
Nobody is non-Chinese here?
48. SS: (hhh)
49. T: Alright OK. Now let's (1) Sh:::Alright. Let's come to another::with the male.

Thirteen or above, stand up. Thirteen or above, stand up.
50. SS: (hhh)
51. S2: Gam daaih!

So old!
52. T: Sh::sh:: Can you keep quiet? OK. I just want one classmate help me to ask, alright? OK. You, you help me to ask then.
First one..Bullish. fahtgaau. Yat go. Se la.
Buddhism. One person. Write.
((Students burst into an uproar)).
53.T: Douhgaau. Douhgaau. Douhgaau yauh-mouh? Zero.

Taoism. Taoism. Is there Taoist?
Alright. Sh::: and then Catholic. One. Tinjyuhgaau . Yat go.
Catholic. One.
OK. And then Protestant. One, two, three, four, five. Ngh go. Five.
Five persons.
Muslims. Muslims. Wuihgaau yauh-mouh? Zero.
Islam, is there anyone?
Others. Gaam-jo keuih la. Others. How many others? Deduct it.
54.SS: Five!
55.T: Ha? a yes! Five. And then Chinese. I think all twelve boys, they are Chinese. Twelve Chinese. Is it clear? Are you following? OK. Very good. OK. Let's do the survey of girls. Can all the girls stand up? With twelve, age twelve, or twelve something, stand up. Those below thirteen, below thirteen, age below
thirteen::: twelve. Oh sorry, we::11, are there thirteen classmate with age twelve or twelve something? One, two, three, four, five, six seven, eight, nine, ten, eleven (1) OK thirteen together. Anyone, Sh::: anyone is Buddhist.? OK.
Anyway, this one leads in others. OK, I just make it.
I'm sorry. Yauh-mouh yahn fahtgaau ga? OK. Zero. Douhgaau. Zero. . Is there any Buddhist? Taoist?
And then Catholic. Tinjyuhgaau. Tinjyugaau yauh-mouh yahn? Zero.
Is there any Catholic? Zero.
Protestant. Protestant. Wah, gam do ge. So many.
Wow, so many!
One, two, three, four, five, six... OK nine. OK and then Muslims. Zero. Others, I think it is four. Others would be four. And then they are all Chinese. What number you fill in the Chinese column?
56.S?:Thirteen!
57.T: Thirteen. Sit down. Alright, next column. Sh::: Wow. You are so happy because we do the survey so, so simple. Thirteen or above, stand up. Age thirteen or above. Age thirteen or above (2). OK. Age thirteen or above (2). Eight! Nine or eight? (1) Thirteen or above.
58. S1: One absentee.
59. T: Ah, one absentee. Alright. Anyway, exclude. Well, I just take it, one, two, three, four, five, six, seven, eight, eight together. Oh. I just take nine together. OK I take the nine. Sh::: the absentee to be the exceptional. OK. I make her as the others.
60. S2:Gai-maih go absent dou haih baat go neuihjai, yihga dak chat go jima.

There are eight girls even you count the absentee. Now you get only seven.
Yih,sei, luhk, baat go a, gaa::o cho!
Two, four, six, eight! No way!
61.SS: (hhh)
62.S2: Bin go wah bei ngoh ji gai cho sou?

Who told me that it was wrong calculation?
63.T: Ga maih mhaih aam lo? Sei-sahp-saam yahn.

Isn't it correct to add them up? Forty-three persons.

Go go absent ge tuhnghohk haih-mhaih sahp-saam a, waahk yihscuhng a ?
Isn't the absent classmate thirteen or above?
Dak la, mh ganyiu la. Yauh-mouh yahn.Sh:::hou la.
It doesn't matter, alright. Is there any person.....enough.

Ngoh mh seung sai sihgaan la.
I do not want to waste time
I just w ant to know. Yauh-mou yahnh Tinjyugaau ge, lidou? Mouh. Is there any Catholic here? No.
Yauhmou yahn geidukgaau ge, li gau go tuhnghohk?
Is there any Protestant? These nine classmates,
Yauh geido go geidukgaau?
How many are Protestants?
Protestant? Protestant? Three only. Three only. Protestants. (1)
Gam keihta go ngh go jauh dong keuih haih matyeh a?
So what will the other five be regarded as?
64.SS: Other!
65.T: Others, that's right. Ngoh mh-seun Lidouh yauh wuihhgaau ge (hhh) I don't believe there are Muslims here
66.SS: (hhh)
67.T: Yauh-mouh yahn wuihgaau a? Mouh-wo.

Is there any Muslim?
No.
Yauhmouh yahn fahtgaau a? (1) OK, OK. Can you fill in?
Is there any Buddhist?
They are all Chinese. They are all Chinese. Can you, OK, can you sum up all the total? Sh:::Can you? Can you? (1)Sit down. Can you sum up all total? (1) OK, sorry, for those who have filled in the survey figures, can you just do step two? Can you do step two? Can you do step two quietly, and then I just give you three minutes to do step two.
Bei saam fanjung neih jouh step two.
Give you three minutes to do step two.
68. S4: May I be excused?
69.T: No, you stay in the=
70.S1: =Jeui daaih geido sui a?

How old are the oldest?
71. T: Yes?
72.S1: Jeuido yahn geido sui?

How old are most people?
73. T: Fifteen.
74.SS: Che!

Pooh!
75.T: Largest group.
76.SS: Fifteen!
77.T: Maijyuhsin, We just check it. OK later I check it with you.

Hang on,
Can you fill in by yourself? Try to understand the table, the step two. Study the data and find out the features of the students in your class and then complete the sentences with appropriate words. You try to find it out and fill in with appropriate words.
Appropriate, that means sikdong. Appropriate words, sikdong ge jih. Alright? appropriate appropriate words

- THE END OF THE LESSON -


## GEOGRAPHY IN SCHOOL B

1 T : Good morning class!
2.SS:Good morning Miss Wong!

3 T: OK, who's on duty today?
4 SS: No. 5
5 T : OK, monitor and monitress, please come out.
6 S1 Miss. Ngoh geihdo fan a?
Miss. How many marks do I have?
7 S2 Ngoh bong neih paai a!
I distribute for you.
8 T : OK, do you have the question paper? Alright, we're going to check the answers.
OK, take out your pen. Where's your pen? OK, write down the correct answers. Are you ready?
9 S1 No!
10 T : OK, first one. Multiple choice questions. OK. Question one. What's the answer?
11 S3: Dog
12 T: Do you remember the answer?
13 S1 :No. I forget
14 T: OK, One. OK, I give you all the answers first. One, B for boy. Two, A. Three, D for dog. Four, B for boy. Number five, D for dog. D for dog. Number six, B for boy. B for boy. Seven, C. Eight, C. Nine, A. Ten, B. OK, most of you cannot get the following questions correct. They are - number two, number three, number four and number seven. And I would like to discuss these questions with you. OK, question two. Question two. Why is there not enough land use in the City B. Why? Four choices again - A, B, C, D. OK, A, industrial land use cannot afford the expensive rent of City B . Is it correct?
15.SS: Yes!

16 T : Yes, of course. B, industrial land use does not choose to be close to commercial land use.
17 SS No!
18 T: No. C, industrial land use does not need a place with convenient transport.
19 S1 No!
20 T : Do they need a convenience, a place with convenient transport? Yes. D, owners of industries do not like to locate their factories at the city center. Do they want to locate their factories at the city center?
21 SS: Yes.
22 T: Why? Why?

23 S3: Many people
24 T: Why?
25 S3: Many people.
26 T : What is the advantage of city center?
27 S3: Good transport.
28 T: Good transport, yes! But why can't they put their factories in the City B?
29 S 2 : The land price is very high.
30 T : The land price is very high, yes. Therefore the answer should be -
31 SS: A
32 T : A, yes! The land price is too high there. OK, question three. Which of the following places are inner cities in Hong Kong?
33 S1 What's inner city?
34 T: OK, I think twenty of you cannot get this answer correct. I think you do not know what is inner cities, right? Am I correct?
35 S 1 Yes!
36 T: OK, what is inner cities in Hong Kong?
37 S1: I don't know.
38 T: You don't know.
Hai syu leuihmihn mouh gin-gwo li go jih me?
Haven't you seen this word in your book?
39 S1: Yauh a!
We have!
40 T: Yauh a! gam neih ji-mh-ji haih matyeh?
You have! Then do you know what this is?
41 S1: Mh-ji!
Don't know.
42 T: Ha. Mh-ji a. gin-dou keuih ga-jah?
O, don't know. Only saw it ?
43 S1: Mh-jidou.
Don't know
44 T: Inner city jikhaih. Gam le se-dei lo-bo.
Inner city is....so you write it down.
45 S1 Hou.
OK
46 T:Gam neih jidou inner jikhaih.... Neih gokda:::k yinggoi 'in' lo.
Then you know inner is.... You feel it should be 'in'..
'in' jikhaih matyeh yisi ne? Jikhaih hai Heunggong beigaau jungsam ge
What is the meaning of 'in'? It means in the more central area of Hong Kong,
deihfong. Yi godouh ne yauh di matyeh dahpbiht ne?
And then what so special about there?
Keui haih lihksi beigaau cheuhng aah...
There is a longer history ...
Gam lihksi beigaau cheuhng lo.di lou jau jihyinh haih -
Then if the history is long, the housing is....
47.SS: gauh!
old
48 T: Yi gaauwaih gauh laa (1)gam yauhmouh kwaiwaahk-gwo ne::i di deihfong?
Then relatively old. Then are those places well planned?
Jauh mouh la. Haih-mhaih? Haih laak.
No then. Isn't it? Yes,
Jyuyiu haih jikhaih sehngsih leuimihn yat di beigaau gauh di a .
lihksi beigaau loih ge godi godi deihfong ge.
it mainly means those older places in a city with a relatively longer history.
Hou laak. Gam jikhaih bindouh a?
Good. Then where does it mean?
Number one, Shatin; number two, Tungchung; number three, Seung Wan; number four, Mongkok.
49 SS: Number three!
50 S 1 'Three' haih matyeh laih? What is 'three'?
51 T: ‘Three' haih matyeh laih? Seuhng Waahn lo. Jikhaih.
What is 'three'? It means Seung Wan.
Jihaih neih gindou yingmahn mh-haih hou ji haih mat. Haih-mh-hai ne?
Could it be that you see the English and do not figure out what it is, right?
Seuhng Waahn a. Number four, Mongkok.
It's Seung Wan.
Hou-do tuhnghohk jyuh-hai Gaulohng
Many students live in Kowloon
nei jau mhai hou sik Heunggong deihfong.
And don't know much about places in Hong Kong Island.
Gam dakhahn tai duodi deitouh lobo. Ji-mji a? OK, the answer is D for dog Then read more maps when you have time, alright?
OK, let's go to question four. Question four. These are examples of institutional land use. Institutional....OK, the answer should be.... is B. Number three and number four, that is hospital and community center. What is community center?
52.SS: Sehkui jongsam!

## Community center!

53 T: Sehkui jongsam, yes! OK, that's the hospital.
Community center,
OK, then can you tell me which kind of land use is number one?
54 SS: C!
55 T : Recreation, no land use. OK, how about railway station?
56 SS: transport land use!
57 T: It should be transportation land use, OK? Number four, the answer should be B. OK , let's go to seven, seven. If the scale of a map is very small, it....

58 S 3 : it is small!
59 T : It is small? Of course not! It is small, of course. Then what do you mean by small scale? It should be C, OK? Covers a large area on a small piece of paper. Oh, we always talk about small scale and large scale. Correct ?
60 Sl: I don't know.
61 T: OK, let's go to part two, true and false. Part two, part two. OK. Now, do number three and number five again. Part two, do number two and number five again. I give you ten seconds.
Ding, time's up. Lauhsam la. Number three, what is the answer?

## Pay attention.

62 SS: True!
63 T: True. OK, let's look at the statement. Commercial, industrial, residential and agricultural are the major land uses in the urban area. Why do you think that? OK, you think that is true, that means all of these land uses can be found in the urban area. OK, I would like to ask you one question, what is agricultural land use? A-g-r-i-c-u-l-t-u-r-a-1, OK, when I taught you the land uses, have I talked about agricultural land use?
64.S1: No!

65 T: No? Then why did you give me the answer 'true'? OK, can anyone tell me the meaning of agricultural? What do people do?
66 SS farming
67 T: Yes, the answer is correct. Can you find any farmlands in urban area?
68 Sl: Yes!
69 T: What? OK, let's go to number five. Number five, what is the answer? Jaugajun.
70 S4 False!
71 T: Your answer is false. OK, let's read the statement. Keen competition of land use is the main reason for the expensive rent in the city B ? OK , Jaugajun, is the rent in City B expensive?

72 S4: Yes!
73 T : OK, why is the land in City B expensive?
74 S2 Convenient location.
75 T : Convenient location, yes. Convenient location. OK, the location is so convenient, so what will happen?
76 S2 Land scarce
77 T: Many people want to....
78 S2: many people want to
79 S?: Buy the land!
80 T : Buy the land! O yes, very good. Therefore, there will be....keen competition of land use. Do you know the meaning of keen competition?
81 S1 No!
82 T : Oh, you do not know the meaning of keen competition, therefore you get the answer wrong! OK, the answer should be true! OK, let me give you the answers for all these five questions. Number one, true; number two, true. Most of you get these two correct. Number three, false, Half of you get this wrong. Number four, true, number five, true.
Part three. One A, identify two types of land use. OK. Most of you get this answer correct. A should be ....
83 SS industrial!
84 T :industrial. Yes. B...
85 SS residential !
86 T :Residential, but some of you spell the word residential wrongly. How to spell it?
87SS: r-e-s-i-d-e-n-t-i-a-1
88 T: Yes, t-i-a-l, OK? OK, let's go to B. One B, what problems would you face to face ? OK, problems.
89 S1 Mouh mehnteih.
No problem.
$90 \mathrm{~T}: \mathrm{OK}$, what are the problems?
91 S3: Pollution!
92 T: Pollution.
93 S3 Traffic congestion!
94 T: Traffic congestion.
95 S3 Crowded environment.
96 T: Crowded...
97 S3 Environment.
98 T : Environment, yes. But if you just write pollution, you will get no marks.

99 SS: Why?
100 T: You have to tell me what type of pollution. For example, air, noise and land, but....

101 S1 But!
102 T : if you give me three types of pollution, I just give you two marks. I just accept two types of pollution, OK? Other points. OK, listen. Some of you write heavy traffic, or some of you write many cars.
Gaautong hou faahnmohng, che hou-do, gam haih-mhaih yatgo problem nei?

Traffic is very busy, there are many cars - is that a problem?
103 S2 Mh-haih, meih sehngwaih yatgo problem. No, not yet form a problem.
104 T: Yauh tuhnghohk wah juhngmeih sehngwaih yatgo problem.
Some student said it has not yet formed a problem.
Haih ge, gem do che ne, meihbit sehngwaih yatgo....
Yes, then many cars may not necessarily become a...
yihga ngoh mehn-gan neih yauh matyeh mehnteih, now I asked you what the problem is
mh-haih yihngyuhng hah godo che , soyi neih yiu dimcheut go mehnteih, so you have to point out the problem, and not describe whether there are many jauh do-mh-do, yihnyung hah go chihngfong. cars, or describe the situation.
O yes, one more thing, some of you write it is not good to live.
Matyeh giujouh not good to live jak. Lidi gam gaahmwuh a, gam What is not good to live, eh? Such vague, chaujeuhng ge dou dim meheut go mehnteih ge youhaih mouh fan abstract answers that cannot pinpoint the question, again gain no marks. OK, Lohjiyan, what is your question?
105 S5: Can I say that the density of the car is too high?
106 T: Lohjiyan's question is: the car density is high, is it correct?
107SS: No!
108 T: Why?
109 S2 Because it is not a problem.
110 T: It's not a problem. The car density is too high. Di che haih hou dou.
The cars are too many.
Di che hou do gam dim ne? Gam dim ne?
What if the cars are many? So what?

Neih yiu gongcheut di che hou do gam daai laih di matyeh mahnteih ne?
You have to say what problem the big number of cars bring
Lohjiyan, gam daai laih di matyeh mahnteih a?
then what problem does this bring?
Gam daai laih matyeh mahnteih a ?
Then what problem does it bring?
Neih kauhsin wah di che hou do a-ma,
Just now you said there were many cars,
mahtdouh hou gou a-ma, gam daai laih di matyeh mahnteih a?
or the car density was very high, so what problem does this bring?
Gam go mahnteih dim gong a?
Then how do you say the problem?
111 SS: Traffic congestion.
112 T: Traffic congestion.
113 S2: Traffic jams.
114 T: Yes! Traffic jams, of course. OK, one C. One C. Why do some people like living near building A?
115 S1 I don't know.
116 T: Neih haih-mh-haih seung bin-faan saai lihng a?
Do you want to have all zeros?
OK. Can anybody give me the answer?
117 SS: Yes!
118 T :Some of you become so excited?
119 S3: The land price is low.
$120 \mathrm{~T}: \mathrm{OK}$, the land price is low.
121 S4:The working class can save the transport cost.
122 T : Yes, the working class can save the transport cost.
123 S3:And we can find the job easy
124 T: And we can find jobs easily. Yes. You just need to give me two. OK, two marks.
I want you to write me two point. OK? But some of you write go to work easy.
Youh-haih a. lidi youh chaujeuhng youh hahmwuh. Mh-haih gam hou a.
Also, these abstract and vague answers are so good.
Lidi hahmwuh daapon, mouh-fan.
These vague answers, no marks.
OK. Two A. OK, let's go to two A. What kind of residential areas should these pictures be? OK , Two A should be low income residential area. Two B , high income residential area.
125 SS: Wow!

126 T: Haih-mhai hou gingaa ne?
Are you very surprised?
Many of you write middle income residential area for 2A.
Mohng chingcho fuk touh. Neih gin-mh-gin di-uk haih waayihng gam ga? Study the picture carefully. Do you see that the housing is like a Y-shape?
127 SS:Wow....No!
128 T: Mhou gam gingdohng. Gam gingdohng dou goibin mh-dou go sihsaht.
Don't get so emotional. Even you get emotional, you cannot change reality.
La. Tengjyuh lobo. La. Neih louhyi yatdi yeh. Louhyi yatdi yeh.
Now, listen. Look, you pay attention to something, pay attention to something.
Tengjyuh la. Godou mihnghin yauh yat joh waayihng. Yihn-ji-houh keuih Now listen. There is obviously a Y-shaped block, and then behind it also two buihouh yauh haih leuhng joh waayihng gam ga. Teng chingcho sin. Y-shaped blocks. First listen clearly.
Hou hingfahn a. Josoubihn. Josoubihn haih-mh-haih gindou yat joh Very excited!On the left, on the left, do you see a block that looks like joint, daaihhah haih luehnhahp maih gamga. Yihnhouh nei. Godi cheungmun Then the windows are very close to each other, hou maht gamge. Aijyuh chijyuh. Yatlaaht gamge stick together, all in a row.
129SS: Tai-mh-dou! Can't see!
130 T: Tai-mh-dou? Mouh dak gam maauh ge. Wah tai-mh-dou. A. janhaih. Can't see? You can't play foul to say you can't see. Really!

Ching tuhnghohk louhsam lobo. Gam ne. Nidi waahying chitgai a. Waahkje Please, students, pay attention. Here, these Y-shaped design, or sihngpaaih gam a. Di cheunghau hou maht a. godi gungguhngyihng a.
the whole row, windows stick together, those public designs....
Waahkje hahchi jeung seung joi chingcho di ne. Neih gindou ne.
Or when next time the picture is clearer, you will see bars and bars stuck
Go cheunghau douh ne yat ji ji jok chaap-jyuh haih-douh go jek.
across the windows...that kind.
Godi jauh-haih gunguk laak. Soyi neih yiu tai dodi seung lobo.
Those are public housings. So you need to see more pictures.
Cheut gai ge sihhauh lauhyi hah lobo. OK. Laakjihng. One, two, three. You look around when you go out. OK. Calm down.
OK , that's all. Danny, what is your question?

131 Danny: ((unintelligible due to the noise made by other classmates))
132 T: Yauh tuhnghohk gong-gan yeh bo.
A classmate is speaking.
Di lau gou jauhaih gwai di? OK. Neih yauh-mou heui-gwo Dungchung The high building is more expensive? OK, have you ever been to Tungchung
A? Tai hah di gungguhng uk a? Mouh heui laih!
To look at the public housing? Never been there!
Ho-mh-hoyi onjihng?
Can you be quiet?
133 S1 Mh-hoyi.
Cannot.
134 T: Let's go to two B. Sh....Don't worry. OK. Even if in two A, you cannot get the answer correct, in question B, if your comparison is correct, that's O - that's alright. What to compare. Compare the characteristics....OK, I write down on the board. Copy down the answers.

## 135 S1: Sai-mh-sai goijeng?

Need to write corrections?
(( teacher started writing on the board))
136 T: Yuhng jeng sou chau.
Use your hand to copy.
137 S1 Sai-msai goijeng a ?
Need to write corrections? ((Teacher keeps on writing on the board))

138 T: Hoyi beigaau ge- yat, yih, saam, sei, ngh, luhk. Yauh luhk yeuhng yeh hoyi Comparable things - one ,two, three, four, five six.
beigaau. Gam ne. Dim beifan ne?
There're six things to compare.
Gam neih lauhsam lobo. Jauhhaih miuh leuhng fan leuhng fan, leuhng fan And so. How to compare? So pay attention. That is, every two marks, two marks, yatdui. Gam lidouh yauh luhk fan. Yauh saam yeung yeh beigaau.
two marks for a pair. Then here's six marks. There are three things to compare.
Yauh samdui jauh dak gala.
It's alright if you have three pairs.
139 S3: Ngoh dak yat fan.
I only got one mark
140 T:Nah. Yatdihng yiu go dui beigaau-dak aam neih sinji yauh leuhng fan bo.
Look. You must get the comparison for the pair correct before you get two
marks.
Yuhgwo neih beigaau ge sihhauh sihdahn yatbin cho-jo ne gam neih haih dak lihng ge.
If you get either one side of the comparison wrong, then you get zero.
141 S1: So bad!
((Teacher kept writing on the board.))
142 T: Gam li tiuh ne yau yat fan haih yingmahn fan ge.
Then for this question, there're one mark for English
Ngohdeih gamchi deihyatchi si laih.
We try it out for the first time.
Gam dimyeung bei ne? Jauh-haih yuhgwo neihge beigaao haih
Then how to give marks? It is, if your comparison is neat,
jingjingchaihchaih ge. Jikhaih matyeh giu jingjingchaihchaih ne
Population density.. Then what is being neat,
Laihyuh deihyat go Neih jauh wah la.
take the first one as example. You say....
Population density is..in OK lower income residential area is higher than that in higher income residential area.
Gam neih juhkgeui juhkgeui maahn-maahn beigaao.
Then you compare sentence by sentence slowly.
Haih hou keilei ge. Gam ngodeih jauhwuih bei yat fan neih gala.
It's very neat. Then we will give you one mark.
Batgwo yuhgwo tuhnghohk hai Two A godouh yihging cho-jo . haih mouh
But if class, you have made a mistake in two $A$, then you ge lei yat fan.
lose this mark.
143 SS: Pooh....!
144 T: Two C. Two C. Two C. OK, name one example in Hong Kong about.... Name one example in Hong Kong about each of the above residential areas. Most of you get these answers correct. But I would like to remind you one thing. Mid-level-s. Repulse Bay for picture two A. Figure two B, you may write Wong Tai Sin, Sau Kei Wan. OK, I think you can get the answer. Question three. Question three. Three A, identify the type of land use. Commercial or CDB. OK, spell the word commercial.
145 SS: c-0-m-m-c-i-a-l
146 T: c-o-m-m-c-i-a-l. Juhngyauh yahn se i-c-a-l bo. Ngoh yihging taih-jo houdo chi la.
Still some people wrote i-c-a-l. I've already reminded many times.

147 S: I.C.A.C.
148 T: c-i-a-l, OK? What are the characteristics of this type of land use? OK, four marks, if you give me four points.
149 SS: High land price!
150 T : High land price, high building density, heavy traffic, tall buildings, commercial activities, high order retail shops, high pedestrian flow in daytime...OK, you give me some examples of financial activities - banks, hotels.
Lidi chyuhnbouh hai neih ge batgei a, syu a, douyauh galak.
All these can be found in your notes and book.
OK, I repeat once.
Tall buildings, high building density, high land rent, commercial activities, high order retail shops, high pedestrian flow in daytime -banks, hotels. If the spelling of the key words are wrong, you'll have no marks.
151 SS: Pooh!
152 T: Haih-mhaih yiu se-sai keuih? Mh-haih... Is it necessary to write all of them? No....
153 S: Se sei dim!
Write four points!
. 154 T: Se sei dim a. Ngoh tauhsin mh-haih gong-gwo lo. Yingman fan dim bei? Write four points. Didn't I just say this just now? How to give English mark? Neih go geui geui-geui dou yauh subject, verb, object. Jikhaih yuhn jinggeui geuiji yauh yat fan.
Your sentence each has a subject, verb, object; i.e., a complete sentence will gain 1 mark.
Batgwo gam bo, batgwo gam bo. Nei yatdigng yiu le. Lidouh sei fan ama. But it's like this, but it's like this. You have to.... there're four marks here.... Neih yatdihng yiu heimah daam-dou leuhng dim ngohdeih sinji ga li fan bei neih ge.
You have to be able to at least get two points before we add this mark to you.
Yuhgwo mhaih neih dou mouh se-gwo yeh ngoh dim bei yingman fan neih a. Otherwise how can I give you the English mark if you didn't put doun anything? Mouh leihyauh ama. OK, three C. Why is the population density load low? Not reasonable.
155 S4: The land price is high.
156 T: OK. Yes, the land price is high. Because the land price is high. OK, number four. Question four. Question four, A. What is the answer for A?
157 S3:Asia.

158 T: B?
159 SS :Europe.
160 T: C? North America. Number one? Atlantic Ocean. Number two?
161 SS: Pacific Ocean!
162 T: Pacific Ocean. Number...OK, and then,...Artic Circle. Two, Tropic of Cancer. Three, Equator. No capital letter - half mark to be deducted.
163 SS: Pooh!
164 T: Yauh aai.?Asia A jih neih yatjou jidou yiu daaihgaai gala. Haih-mh-haih? Ha.jenhaih.
Cry out again? You know very earlier on that Asia should have capital A, right? Really!
Oh yes, Tropic of Cancer. Bingo jih yiu daaihgaai?
Which letter should be bolded?
165 SS:T!
166 T: Tropic. Tropic go go. Juhngyauh.
The 'T' in Tropic. One more.
167 SS:C!
168 T: Haih-lak. Cancer go go C. Jauh dak lak. OK, number five, 5A.
Yes. The ' C ' in Cancer. It's $O K$.
Number one, number two, number three. Nearly all of you get the marks correct.
Jouh-dou gamsihgamyath dou sik galak. Tohnghohk.
Class, you can get this correct having done this far up to now. I think I don't
Gam ngo lam ngo msai bei daapon neihdeih dou ji gala.
need to give you the answers and you know.
169 S2: Mh-sai.
No need.
170 T: Five B. Five B. Find out the whole circle bearings. Some of you forgot what is whole circle bearings. OK. The answer should be 280 degrees.
Na....yuhgwo neih cho-jo li go daapon neih faanheui joi dohk-gwo ha
Look....if you got this answer wrong you go home and measure this again
Nah, yihga seuhng-gan tohng mouh sihgaan.
Look, now we've no time in class to measure it for you.
. mh-dakhaahn tuhng neih dohk aha. Faan hukkei hohk hou keuih aha.
No time to measure it with you. Go back home and study it
Ngohdeih jungyih a. joi haau ga lidi yeh..

We'll test you again on these things in Form two.
A. seuhnbin teih neih yat yeuhng yeh. Go bin Maxfill mh-hou dam

By the way, to remind you one thing. Don't throw away that
Ngohdeih jungyih wuih joi haau ga. Leidi yeh.
Maxfill away. We'll test you on these in Form two.
171 S1: Jouh-sai la
Finished already.
172 T: Jouh-sai mh-haih hou lo. Ngoh wah mh-hou dam jek. OK, five C. Five C. Draw, OK. Isn't it good to finish it. I just said don't throw it away.
Calculate the distance involved. The distance should be three thousand four hundred fifty meters.
((The teacher drew on the blackboard while students shouted at seats.))
OK, three point two, oh, thirty-two point five to thirty-seven minutes. OK?
Number two. OK, question six. Six A. Find the longitude and latitude. Some of you mix up longitude and latitude. Longitude should be the....
waahng dihng duhng a?
Horizontal or vertical?
Long.... Ngoh go-chi mh-haih gaau-gwo long ...nei go jeui haih dim a? Didn't I teach you that long...... what should your lips be like?
Neih go jeui haih laai cheuhng ama. Longitude should be vertical line. OK? Your lips should be pulled long.
Latitude is horizontal lines. Ganghaih jiu chaao gala. Neih louluhn da waahng Of course you copy this. You mix up horizontal or
dihng da duhng. Gam bong mhdou neih lak.
Vertical. Then I can't help you.
B , measure the actual distance. Most of you get get this correct. C. OK. If the typhoon moves towards west-north-west, west-north-west, it should be Hong Kong or Hah Muhn?

Xiaman?
173SS: Hong Kong.
174.T: Yes, Hong Kong. Ngoh wah sai-bak-pin-sai ama. Neih yauh-mouh louh-jo yeh?

$$
\text { I said west-north-west. } \quad \text { Did you mix anything? }
$$

OK. C one, the answer is Hong Kong. C two, when?
175 SS: Seven P.M.
176 Yes, seven P.M.
177 SS: Yeah!
178 T: Most of you got this correct. OK, the last C part. OK the last one should be this.

A one. Identify the problems. Picture A, poor living condition or housing shortage? If you write housing problem, no marks. It's too general, OK? And picture B....
179 S3:Traffic congestion!
180 T : Traffic congestion, yes. Very simple. OK, A2. What can the government do? To solve the problems.
181S2: Provide more housing.
182 T: OK, I write the answers on the board.
((Teacher wrote on the blackboard.))
What can the government do? I have five points. You just need to give me four. Urban renewal, better urban planning, new town development, reclamation, new transport network. Oh, reclamation. Mind the spelling, please.
183 SS: No i
184 T: Yes, no i, the letter i. Haih la. Gusiufai dou gei-dak la.
Yes, even Gusiufai can remember.
Ngo teih-jo houduo chi la. Yauh tuhnghohk touhsin wah le.
I've reminded many times. Some students asked,
Yuhgwo go yisi aam gam dak-mdak ne?
if the meaning is correct, is that $O K$ ?
Batgwo ngoh le jauh gokdak leidi jih hou naahn yohng daihyihdi chih
gong gobo.
But I think that these words are hard to be replaced by other terms.
185 SS: peiyuh provide more new town.
for example provide more new town.
186 T: Provide more new town. Gam dou yauh new town a.
This still has 'new town'.
187 S5 Build the city again.
188 T: Build the city again. Neih gok-mh-gokdak yauhdi gwaai-gwaai-dei ne?
Don't you think this sounds a bit strange?
189 S4:Fill the sea again!
190 T: Neih yat hoichi hohk ge sihhau jau hohk hou keui ama. Se ge sihhau.
When you once start to learn, you learn the good things, when you write.
OK, the last part.Bonus. Why is urban planning important to Hong Kong?
191 SS: No!
192 T: Dimgaai yiu sehngsi kwaiwaak-dak gam hou jak?
Why should there be such good urban planning?
193 S1: Mh-ji.
Don't know.

194 S: Yanwaih Heunggong sai!
(Because Hong Kong is small!
195 T: Yanwaih Heunggong sai. Haih se leileui yeh la. La. Tengyyuh lobo. Because Hong Kong is small. Yes, write this sort of things. Hey, listen, Laihyuh se matyeh le?. Hong Kong is hilly. There is limited land. for example, what to write?
Mh-gau deih lobo.
Not enough land.
Gam mh-gau deih jauh jihyihn wui faatsang matyeh sih a?
Then what will naturally happen when there's not enough land?
196 SS: Lamsaan!
Landslip!
197 : T: Land conflict.
198 S1: Mh-sik chyun.
Cannot spell
199 T: Mh-sik chyun. C-o-n-f-1-i-c-t. Gan-jyuh jauh dim a?
Cannot spell.
What follows then?
Gan-jyuh jeuihou jauh yauh kwaiwaahk yauh matyeh houchu a? .
Then it ought to be good planning... What is the advantage?
Industrial area will not be close to residential area. There is more open space.
Reduce population density. Develop transport network.
Keihsaht gongsai urban planning yauh matyeh hou....jyuhyiu yauh matyeh
Actually tell all the advantages of .....the main advantages of urban planning.
houchou ama. Keihsaht syu leuihbihn haih yauh ge. Neih yauh-mouh louhyi-dou le?
Actually they are in the book. Did you notice?
200 S1: Mouh!
No!
201 T: Mouh! Gam le. Litei daam dak jeui hou le haih a Gougufai
No! And so, The best answer of this question comes from Gougufai. ((Applause))
Gam le. Yatjehngaan ching keui sehai haakbaan.
OK. Later on would he please write on the blackboard.
Batguo sihgaan gwaanhaih ngoh paai-jo bou sin la.
But let me distribute the books first.
Hou la. Sai-msai goijing le?
Good. Do you need to make corrections?
Neih kauhsin yiging hou gwai gam chau-dei di daamon lo ho.

Just now you have very nicely copied down the answers, right?
Gam yinhhou fannheui ga do siu-siu jauh jouh hou gala ho.
Then go back home add a little more and it's done, eh?
Gam jekhaih yiu jouh la. Yiga dou jouh-jo daaibui lok.
Then that means you need to do it now that you've done more than half.
Waahngdihm neih dou jouh-jo daaibui lok.
Afterall you've done more than half.
202 S1: Mh-hou la!
Don't!
203 T: Geisi gaau.
When to hand in.
204 S1: Mh-sai gaau.
No need to hand in.
205 T: Gam gaandan ge yeh. Leung yaht jauh jouh-yuhn la. Yat yaht dou jouh-yuhn la ho,
Such simple things. You can finish in two days. Even one day, isn'tit?
houchi. Batyuh jauh tingyaht lak.
Looks like it. May as well be tomorrow.
206 S1: Mh-hou a!
Oh don't!
207 T : Tingyaht baanjeung ching bong ngoh sau.
Tomorrow monitor please help me to collect.
Gam neih seung-mseung ji jihgei haih-mhaih jeui gou fan go go a?
Then do you want to know if you are the one who gets the highest mark?
OK, total mark is seventy-five. The highest mark is Seventy-one.
Johng yauh yat yeuhng yeh meih gong. Yauh sam fan haih Yingmen fan
Still one more thing that is not mentioned. There're three marks for English,
ge.Dim bei le. Jeuihou ngoh mhaih gaau-jo ga sam fan ge. how to give? Didn't I teach you to add three marks, for Englihs?
Haih Yingmehn fan ge. Dim bei le? Teng-jyuh.
How to give marks? Listen.
Yuhgwo neih batsih haih yohng yat dim-dim lit cheut le.
If you do not use a list,
Jauh yihging bei yat fan neih la. Hou lak. then you already get one mark. Good. Genjyuh yugwoh nei di geuiji hou yuenjing. And then if your sentences are very complete, Yauh subject, verb, object. Yauh yat fan.

And there're subject, verb, object, one mark
Gam soyi daaih boufan di tuhnghohk dou haih yauh ge. Hou lak.
Therefore most of you students can get it. Good.
Dai sam fan jauh haih neihdeih di geuiji hou laucheung a. daapon
The third mark is, if your sentences are very fluent, and your
Joujek-dak hou hou a. gam neih jauh yauh-maih ni yat fan.
Answers are well organized, then you get the third mark.Get it.
Hou la. Ji-mh-ji bingo lo chat-sahp-yat a? Mhgafai!
(( applause))
OK, and then the next one, OK, sixty-seven. Goksiufai. ((applause))
Next one. OK. Sixty-two.

## Lohjihyan!

((applause))
OK, Tammy, yes.
((applause))
OK, one more, sixty-two. Yanlokfu.
((applause))
Next one, fifty-nine point five, OK, it's a girl. Ngsansan!
((applause))
Next one, fifty-nine. Koyichau.
((applause))
OK, fifty-nine again. Hohginnaam.
((applause))
OK. Next one, fifty-nine again. Amy.
OK. Next one, fifty-seven. Jeungginbang.
(Wow!)
((applause))
Next one, forty-six. Hohyin.
((applause))
For the rest of you, please come out according to your class number. Class number one. Number two, number three. OK, number four. OK. Add up all the marks and see whether they are correct.
Yauh mehnteih ding yatjehngaan wan ngoh.
Come to find me later on for those who have a question.
Now fourteen, fifteen, be quick. Sixteen,
seventeen. Fifteen, sixteen, seventeen, eighteen, nineteen, twenty, twenty-one. Who is class number twenty-one? Twenty-two? Twenty-three? Twenty-four?

Twenty-six?
Thirty. Thirty-one? Thirty-two? Thirty-three? Thirty-four? Thirty-five?
Thirty-six? Forty? Forty-one?
((To individual student))
208 T: Lah. Ji-mh-ji ga-jo fan sin? Neih tai-sai sin chouh-mai yat chi gwo cheutlaih mahn.
Look. Do you know marks have been added. You finish reading and come up to ask with all the questions
((To the whole class))
Yuhgwo neih faatyihn ga cho-jo ne. Jeui hou wan gaakleih go tuhnghohk gaa yat chi sin.
If you find the mark is wrong, you'd better ask your neighbor to add it up once Yihnhou gaakleih ge tuhnghohk dou wah, yi, haih-bo. Gaa cho-jo bo.
first. And then if your neighbour said, "Yes, wrong mark."
Gam neih jauh cheutlaih la.
In that case you come up here.
209 S4: Goijing goi-hai bin?
Where to put the correction?
210 T: Hou lak. Neih ge goijing goi-hai question paper waahkje answer sheet dou dak.
Good. Your correction can either be done on the question paper or answer sheet. Jongji neih gaau-dou go goijing jauh dak lak. As long as you can hand in the correction, it's OK.
((To individual student))
211T: Se-dei neih ge houhmah sin. Sahp-sei houh. Neih seung mahn matych le?
Write down your number first. Number fourteen. What do you want to ask?
212 S2: Sa Tihn. Mah On Saan yauh houdo gunguk a.
There are many public housing in Shatin and Ma On Shan.
213 T: Sa Tihn.Mah On Saan. Haih a. Yauh houdo gonghuk a. Daahnhaih yauh houdo keihta
Shatin, Ma On Shan. Yes, there are many public housing, but there are other jungluih ....jekhaih yauh houdo goukap jyuhjaak bo. Haih-mh-haih sin? kinds of..... that means there are many high class housing, aren't there?
214 S2: Yiu gong-dak jyeunkok-di.
Should be more precise
215 T: Haih lak. Yiu gong-dak jyeunkok-di. Neih ledouh deihfong sahtjoih taai daaih la.
Right. Should be more precise. Your places here really cover too wide an area.

Lah. Peiyuh neih gong Wohng Daaih Sin jauh hou-di,
Look. For example you said Wong Tai Sin, that would be better,
Yanwaih Wohng Daaih Sin Sahtjoih mouh mat goukap ge jyuhjaakkeui.
Haih-mh-haih?
because there aren't any high class housing in Wong tai Sin, right?
216 S: Sai-mh-sai yuhng jinggeui geuiji goi?
Need to correct in complete sentences?
217 T: ((To another student))
Yuhng jinggeui geuiji goi. Yiu.
Correct in complete sentence. A must.
218 S: Miss Wong. Mh-haih bo!
Miss Wong. Not correct.
219 T: Ngoh joi yuhng geisougei tai Neih joi gam do yat chi.
$I$ will check again with a calculator. You punch one more time.
220S: Ligo sai-mh-sai goi?
This one needs correction?
221T: Haih a.Cho-jo mh-haih yiu goi lo. Ngoh jauhhaih seung neih hachi se-faan hou.
Yes. Needs correction if it is wrong. I just want you to get it right next time.

## 222 S: Yih B dimgaai dak saam fan?

Why two marks for $2 B$ ?
223 T: Yih B dimgaai dak saam fan? e .....Ngoh wah yat dui-dui bei fan ama. Why two marks for 2B? e....I said I gave marks to pairs.
Daahnhaih ledi hou a mh-hou a. mh-haih keuih ge dahkjing laihge.
But these good and not good are not its characteristics.
Soyi jauh mouh fan ge. Neih yiu wen-di keui ge dahkjing.
So there are no marks. You have to find its characteristics.
224 S: The areas are cleaner. Genjyuh ne...
And then...
225 T: Daahnhaih ledi dou mh-haih dahkjing. Yiuhaih ngoh haakbaan seuhngmihn go di.
But these are not characteristics either. Ought to be what I wrote on the board. Yanwaih yiu jaahpjung se dahkjing. Yuhgwo mh-haih neih bei yat go chinggit, yat go wujou, yat go leng, yat go mh-leng
Because you have to focus on the characteristics. If you give 'one clean, one dirty', 'one pretty, one ugly'.
. Gam jauh hoyi bei yat daaih chau lobo.
Then you can give a whole chunk this way.

Neih yiu se-dou keuih mahtdouh ge mahnteih la. Se-dou keui ge open space do-mh-do.
You have to write its density problem, write if it has got open space.
226S: S: (Miss Wong a. Leigo haih-mh-haih yat fan laihga.
(Miss Wong. Is this one mark?
227 T : Leigo haih yat fan lainge. This is one mark, yes.
228 S: O. Gam aam lak.
Oh, it's correct then
229T: Neih gam aam la. Gam gaaudim la. Hou a. You're correct then. Then it's $O K$. Good.
230S: Mhgoi.
Thanks
((To the class))
231 T: Yauh-mouh mahnteih tim?
Is there any more question?
Hou la. Gam ngo dong neih gaaudim lobo.
Good. Then I treat you as having no problem.
Yuhgwo neih jenhaih jihouh faatyihn yauh mahntei. Neih dou hoyi wan ngoh ge.
If you really find problem afterwards, you can still come to see me.
232S: Hai bindouh goijing?
Where to do the corrections?
233T: Joi gong do yat chi. Goijing se-lohk question paper waahkje answer sheet dou dak.
Let me repeat. Corrections can be put on either the question paper or answer sheet.
Jungji gaao cheutlaih yauh neih ge goijing jauh dak lak.
Anyway if your correction is among those submitted, that's OK.
Yuhgwo. A....haih. peiyuh gam a. go tiuh teihmuhk sei fan ge.
If....Oh yes. For example if that question is four marks.
Gam neih lo-jo leuhng fan. gam jikhaih gaa leuhng dim la.
Then you've got two marks. Then that means you have to add tuv points.
Gam neih gaa do faan leuhng dim jauh dak galak.
Then it's $O K$ when you add two points.
234 S: Yauh-mouh yahn mh-hahpgaak?
(Is there any one who failed?
235 T: Yauh-mouh yahn mh-hahpgaak? Haih yauh ge.

Is there anyone who failed? Yes.
236 S: Ngoh a.
It's me
237 T: Batgwo hou siuleuhng je. Haih yauh ge. Batgwo hou siu.
But there are only a few. Yes, there are, but only a few.
238 S: Dim sinji haih mh-hahpgaak?
What do you mean by failure?
239 T: OK , dim sinji haih mh-hahpgaak. lah. Munfan haih geido a? chat-sahp-ngh.
What do you mean by failure. Look, how many is full mark? Seventy-five.
Gam yat bun mh-haih saam-sahp-chat-dim-ngh lo.
Then half is thirty-seven point five, right?
Saam-sahp-chat-dim-ngh.
Thirty-seven point five.
((One student said something which was too noisy to hear. Teacher talked to him individually.))
240 T: Haih a. Ngoh ji a. Neih mouh chingcho wah ngoh ji bingo figure haih low income
Yes, I know. You didn't clearly tell me which figure is low income, which is high
bingo haih high income. Neih jauhgam wah they are bo. Mh-dak ga. Income. You only said 'they are'. Won't do. OK. That's all. Stand up. Goodbye class.
241 SS: Goodbye and thank you, Miss Wong.
-END OF THE LESSON-

## OTHER TRANSCRIPTS ARE OBTAINABLE UPON REQUEST

## APPENDIX 6: INTERVIEW RESULTS WITH TEACHERS AND STUDENTS

## 1. The Interview Questions

a) with the teachers
i) What do you feel about some Hong Kong Chinese constantly mixing English into their speech? (attitude towards code switching in general)
ii) When teaching History/ Geography/ EPA/ Accounting to your students, do you prefer to use all English or a code-switch of Cantonese and English, why? (attitude towards classroom code-switching)
iii ) Can you give me some situations in which you would switch from English to Cantonese or Cantonese to English? (pedagogical/ communicative functions of code-switching)
iv) Do you normally switch in one sentence or in between sentences? (linguistic patterns of code-switching)
v) Do you think it makes a difference if teachers switch in one sentence than if they switch in between sentences as regards students' English language acquisiton? ( relationship between linguistic patterns of code-switching and English language acquisition)
vi) What did you study in college? Did you attend EMI or CMI schools?

## b) with the students

i ) What do you feel about some Hong Kong Chinese constantly mixing English into their speech ? (attitude towards code-switching in general)
ii) During your History /Geography/ EPA/ Accounting lesson, do you prefer your teacher to speak in all-Cantonese, or all-English, or a mix of both? Why? (attitude towards classroom code-switching).
iii) Can you give me some situations in which your teacher will switch from English to Cantonese or Cantonese to English? (pedagogical / communicative functions of code-switching)
iv) Does your teacher normally switch in one sentence or in between sentences? (linguistic patterns of code-switching)
v) Do you think it makes a difference if teachers switch in one sentence than if they switch in between sentences as regards students' English language acquisition? (relationship between linguistic patterns of code-switching and English language acquisiton)

## 2. Transcripts of Interviews

## a) with the Geography Teacher in School A

1 .Interviewer (I): Maybe Mr.Ng has already told you, I'm now working on a Doctoral degree in education. My research topic is in classroom language. Thank you for consenting to be my informant. Everything in the interview will be confidential. So please feel free to give me any information you like. Just now, I heard that your students were very comfortable in using English in class. Their English is very good, isn't it?
2. Teacher (T): Yes, actually this is the top class. They were screened into this class with English and Mathematics as the criteria. Basically they have no problem understanding English.
3. I: Their English is really good. So they can use English in discussion, right?
4. T: Well, if the topic is not that difficult, they can speak English most of the time. But they would use Chinese in their personal talks, or in groups. And I will let them, as I hope that they can brainstorm ideas during discussion.
5. I: Then I would like to ask you if you have any special feelings when you hear people talking to each other in a mix of English and Chinese?
6. T: No. As long as the message can get across, I think it's OK. I think the chief function of language is for communication.
7. I: Then do you mix languages when you teach Form one students?
8. T: I teach three subjects: English, Geography, and Language Across the Curricula. I can use English for over $95 \%$. Actually if the concept is simple, they can handle all in English. But there are some terms I would like them to know the Chinese equivalents, then I will just tell them the Chinese terms, e.g. land conflict.
9. I: Other than this, will you speak Chinese to your students for example, in casual talk?
10. T: Maybe there are individual students you see have great difficulties, then I will use Cantonese one-on-one, as they need some clearer guidelines.
11. I: What about scolding students?
12. T: Depends on what the content is about. For instance, if it is about handing in exercise books, I can use English. But if it is about interpersonal issues, emotional problems, I'll use Cantonese, because they may not know how to express these concepts. Or they won't be able to understand the teacher.
13. I: What about some personal feelings?
14. T: Yes, I'll also use Cantonese, so they can express in Cantonese.
15. I: Then all the rest of the lesson will be conducted in English?
16. T: Yes.
17. I: So sometimes if you need to use Cantonese, would you prefer to separate the two languages, or you'd use both languages in one sentence?
18. T: In lesson, I would only say one term in Cantonese. I seldom use the two languages alternatively, like one English sentence followed by one Cantonese sentence. I may mix languages when I talk to friends. But in class I'll try to discipline myself because I don't want my students to drift between languages with the teacher.
19. I: So you would insert Cantonese terms in English sentences. But then even when scolding people, you would use complete English or complete Cantonese.
20. T: Yes.
21. I: So you seldom use both languages in one sentence.
22. T: I try to avoid this situation.
23. I: And you seldom follow English sentences with translation of Cantonese.
24. T: Yes.
25. I: Got it. And you know in Hong Kong, in Hongkongers' casual talk, we often mix Cantonese and English in one sentence..
26. T: Mixed code.
27. I: Yes, mixed code. So do you think if in class, teachers use mixed code randomly, would you think if there is an influence on students' learning as compared to clearly defined roles for the two languages like what we've just mentioned?
28. T: I don't know of any research findings that show the difference. I myself grew up in mixed code. When I came to form six or seven, I know what languages were about, I didn't find any problem with mixed code. But when I teach in class, I'll try to use only English or only Chinese.
29. I: All English or all Chinese.
30. T: Yes, students nowadays are not as strong in English as us in the old days. So using pure languages will be simpler for them.
31. I: You mean in learning.
32. T : Yes, because students are not as disciplined today. They may even write Chinese words in the middle of English sentences. I've got to pay attention to this problem.
33. I: So you mean separate languages will help students in speaking and writing, so they wont' use mixed code to express themselves.
34. T: Right you are. Especially in learning English, you find that mixed code will produce English expressed in Cantonese forms. So I'll remind myself to avoid this.
35. I: What about learning the subject, do you think using all English will create a problem for the students?
36. T:Well, depends. Our school is a top school. About 80 to $90 \%$ of students can follow EMI. Of course there are some with limited English proficiency. They may be passive and not to take action to build up their vocabulary. Then they may have problems.
37. I: What did you study in college?
38. T: I majored in TESSOL.
39. I: No wonder you have a lot of insight into classroom languages. Thank you.

## b) with the EPA Teacher in School B

1.I: How do you do, Miss L. Now I'm going to interview for the Doctorate thesis which will not be published in Hong Kong. All the names involved such as the name of the school and your name will be kept confidential. So I hope you don't mind giving the true answers to me. The first question I like to ask you is, what do you feel towards Hong Kong people who in their daily conversation mix English words into their Cantonese sentences?
2. T: When I first took up this profession of teaching, I was like this kind of people. I also used a lot of mixed sentences. But after about a year I found that was not good for my students in learning English. It should be either all English, or all Cantonese. I found when they wrote in complete sentences, you know, ours is an EMI school, they were not fluent. Can it be that when I spoke in mixed sentences in class, it would cause my students to write sentences that missed something. So I came to this awareness. And when the Principal watched classes in those days, he asked us to teach in English. So I began to use all English after the second year of my teaching career.
3. I: Yes. What about in casual talk, ordinary Hong Kong people use mixed languages, would you feel repulsive, or you think it is just normal?
4. T: I won't feel repulsive in causal talk, because sometimes, one English term can express a lot of things. So casual talk is different from teaching, and they should be viewed different. It's OK to use mixed sentences in casual talk, but we shouldn't do it in class.
5. I: So you would rather have all-English or all-Chinese.
6. T: Yes.
7. I: Can you give me some examples as to when you use Cantonese?
8. T: You mean in class?
9. I: Yes, in class.
10. T: If I find some difficult words which a Form One student cannot understand, then I will read the sentence or idiom once, then I tell the Chinese equivalent of
the word to the class.
11. I: Any other examples?
12. T: Examples? Now?
13. I: I mean examples of the use of Cantonese.
14. T: Yes, yes. Explaining difficult things is one. Another thing is, sometimes I find I cannot express well in English, or problematic, then I would rather explain in Cantonese. Then I will think again how to reorganize the sentences in English.
15. I: Right. Apart from this? Any examples you think you need to speak Cantonese, or it is better to speak Cantonese?
16. T: Well, I think it is political policies, especially those we talk about in social subjects. There are many terms that our students cannot understand, like Executive Council, Form One students won't be able to understand, Legislative Council, etc. I will explain once in Cantonese. That's it.
17. I: What about for topics outside of study, is there the need to speak Cantonese in class?
18. T: Yes. For example when you talk about feelings. I hope my students can receive some sharing from the bottom of my heart, then I'll use Chinese.
19. I: What about when scolding people? (laughter)
20. T: Depends on what people. For some naughty kinds, they don't know what on earth you are talking about if you speak in English (laughter).
21. I: Right you are. Or you need to discipline them.
22. T: Or sometimes when you talk about ethical teaching, students will get the message faster and more thoroughly if you speak Cantonese. Especially when we talk about life education, there are some issues concerning morality, then I will use Cantonese.
23. I: Am I right saying that you seldom mix English words into a Chinese sentence, or Chinese words into an English sentence?
24. T: Yes.
25. I: You choose to use a complete English sentence...
26. T: And a complete Chinese sentence.
27. I: You think this makes a difference to the students in learning English.
28. T: Yes. I think at least when they hear English all the time in class, they will not be hearing truncated sentences, which then will be more thorough and complete. Not only for students, but for teachers as well. When I started to teach, my English is not fluent either. But you feel you need to improve on it. So you will practice more and you will improve. If you mix English and Cantonese all the time, your English will never be good. And when the Principal sees you, he will train you to use all English. The first two years of teaching was a time to polish
your spoken English so you can improve.
29. I: So this will help you and the students because of the issue of grammar. Complete sentence structures can be more fluent.
30. T: And when you prepare for lessons, you will write some sentence structures too. So that can help you to express better.
31. I: Yes, thank you so much, Mrs. L.

## c. with the History Teacher from School B

1. Interviewer (I): Thank you very much for coming to this interview today. First of all I have to clarify that the purpose of this interview is gathering information for my Doctoral thesis. The topic is on mixing Cantonese and English in teaching History. All information will be used only for the thesis and so particulars like the name of the interviewee, the student, and the school will not be made known to the public. Therefore I hope that you can feel free when making your views. You may use whatever language you like. The first question is: what is your view towards some Hong Kong people who use a mixture of Cantonese and English in their speech?
2. Teacher ( T ): Just my personal feelings?
3. I : Yes, your personal feelings.
4. T: I understand why they do this, because the situation in Hong Kong is just like that. I mean they study in English in schools, but they speak Chinese in their daily living. They may not be able to handle a complete sentence structure in English, but only some isolated words. So they can only utter some isolated words in a Chinese sentence. Personally I don't like this phenomenon of mixing Cantonese and English.
5. I: Why?
6. T: Why? I think this is not fluent in expression at all. And.. not sure if this is prejudice, but I think people who mix English into Cantonese to some extent may want to show their superiority, that they can speak English...or some words you don't know...or their identity in using some vocabularies.... So I don't like this kind of people.
7. I: Yes, I see. Then when teaching Form two History, would you like to use pure Cantonese, pure English, or a mix of Cantonese and English?
8. T: Well, if it is purely teaching the History subject, I would like to use Chinese, because many vocabularies in History are difficult to Form two students. Or some concepts like causal relationships, accidents, or historical inevitability...many concepts like these. It may take a long time to explain
what should have been very simple ideas when one teaches in English. And you cannot have a lot of interaction with the students in class if you teach in English. It shouldn't be only the teacher who does all the talking; students should give response as well, but using English is a hindrance. Students can't answer teachers' questions in complete English sentences. So regarding the History subject, which require more interaction, more personal opinions and individual viewpoints from students, Chinese will be better.
9. I: But then in reality, can you use pure Chinese?
10. T: Of course this is not possible, because this is an EMI school. So there shouldn't be any mix-codes in class. That means you don't have an English sentence followed by a Chinese one for translation or explanation here. No, no such a thing. The majority of the lesson will be given in English. But in some situations, like when I want to scold them, or discuss homework with them, or want to tell them what I think about some of their behavior, then I use Chinese. Or when I want to explain to them some difficult terms for which I can't think of some easier English equivalents, then I'll use Chinese. But it's not like one Chinese sentence followed by one English sentence.
11. I: Usually when you mix Chinese and English, do you switch within a sentence, or in between sentences?
12. T: In between sentences.
13. I: So you won't insert English words into a Chinese sentence, or Chinese words into an English one?
14. T: No.
15. I: Do you think these two ways of mixing Chinese and English make any difference in, say, students' receptive power or their language acquisition?
16. T: Do you mean isolated English words...
17. I: I mean code-switching in one sentence, and code-switching in between sentences.
18. T: I think there is a difference. If it is in between sentences, then the sentences should be complete, whether in English or Chinese. Then when the students listen to these, at least they know which verb should go with which noun. And they should be able to learn something if they pay real attention. If you just insert isolated English words into a sentence, the students may not be able to know the correct way of using them. Maybe they just know their explanations in Chinese, but this won't help with the usage, and won't help with their written or oral communication in the future.
19. I: But what about the students' receptive ability?
20. T:You mean using pure English?
21. I: Yes, if you use complete English sentences, do you think the students can understand you?
22. T: Well, actually before I came for this interview, I did ask the students how much they could understand my lessons. Of course this can partly be reflected in tests. But for lower forms, more diligent students may have higher test scores. I asked the students, and found that they do not have a very good grasp of my lesson. Generally maybe just $70 \%$ of the whole lesson. Very smart students may have more. And when I mark students' homework, I find some seem never have got what is taught in class.
23. I: Does the school or you yourself have any remedies?
24. T: I would give some worksheets for students to do before class so as to make them read up beforehand.......
25. I: Thank you, thank you very much. Can I ask you the last question: what was your major in college?
26. T: History. World history.
27. I: Did you study in an EMI or CMI secondary school?
28. T:EMI school.
29. I: So you are used to learning or teaching in English.
30.T: Yes.
30. I: Thank you.

## d. with the Geography Teacher in School B

1. I: Teacher S, I will mainly ask you questions about classroom language for my Doctoral thesis, and therefore will not publicize the results. Everything will be kept confidential. The first question is how would you look at people who mix Chinese languages in their daily speech. Do you have any special feelings towards them?
2. T: What feelings? I think it's quite common.
3. I: Yes very common.
4. T: Well, maybe they've learnt the English word in school, and they feel that word fits in the context at that particular moment. So they will use it. I think it's very natural, not good or bad.
5. I: Very neutral, right?
6. T Yes.:
7. I: So when you teach Form 1 Geography, what you taped for me was Form 1 Geography, right? Would you intend to use only English, or a mix of two languages?
8. T: Well, only English... actually I think it all depends on the students' ability.

Actually the class I taught was the best class. If I think the majority can understand me, I can use English. So it depends on the students' response and situation.
9. I: But then what you recorded for me showed that you used English.
10. T: Well, there was the need. It was a lesson when we checked a test paper. Sometimes it is very difficult to tell what mistakes the students have made. But if you Cantonese, you can show them very clearly why their answers were not acceptable. But when I teach a lesson, if they don't understand in class, they can go back home to look up the meaning. When you check a test paper with them, if they don't understand, they will make the same mistakes again next time, and they will have no second chance.
11. I: Does that mean you use Cantonese for complex ideas.
12. T: Yes, you may say so, for complex things, you use Cantonese to explain. And that's faster as well.
13. I: Apart from this, any example or occasion in which you will use Cantonese?
14. T: Yes, sometimes when you are hurrying with the syllabus. Or sometimes when you see the students getting bored, inactive, you use Cantonese to crack jokes, or to remind them what the lesson is about.
15. I: What about scolding people?
16. T: Yes, you use Cantonese to scold them. Or there is some mistake that the whole class will make. You can't bear to see some students not being able to understand you.
17. I: Yes. When you mix languages, would you say a whole chunk of English, or a whole chunk of Chinese, or would you mix the two languages in one sentence?
18. T: Both situations. Sometimes I speak a whole chunk of Cantonese. Well, let me think .... Yes, maybe mixed sentences more.
19. I: Mixing languages in one sentence.
20. T: Yes, because some terms in Geography will sound strange in Chinese, then I will keep the English terms.
21. I: Apart from technical terms, what else?
22. T: Well, apart from these, I will speak Chinese whenever possible. I mean if I speak in Cantonese. English will only be for technical terms.
23. I:Do you think complete English sentences rather than mixed sentences will make a difference in students concerning their English language acquisition?
24. T: Oh, so it's the choice between all English, or mixed code? What about all Chinese?
25. I: No need to answer all Chinese.
26. T:Well, assuming the students can understand everything in English, if they have
more exposure to English, that will help them understand better. I mean listening only, as I don't know if this will help them speak English also. For listening, the more they listen, the sentence structures will be imprinted on their minds more easily, I suppose. Many teachers repeat the few classroom sentences, students will easily pick them up. But if you ask me if the students will learn much more English if in an all-English classroom, I would say they may not be able to learn a lot.
27. I: Why?
28. T: I feel if the few repeated sentences they may pick up. But if every sentence is new, I wonder. Let me use myself as an example. When I was in school, I didn't learn English from the teachers' spoken English. I learned English from the English class, like grammar, listening. I think during non-language lessons, my purpose was just to understand the content, rather than learning English from the teachers
29. I:So you mean complete English sentences will help students to learn listening, but won't help in their oral.
30: T:I think not much help with writing or speaking. Maybe a few sentences the students can learn.
31. I: Why is there no help for oral?
32. T: Mainly because they don't have a chance to speak. They just use a complete sentence or you won't have time to teach them use correct English in class.
33. I: Yes. Got it. But you think complete English sentences will help them in listening proficiency.
34. T: Yes.
35. I: Thank you very much.

## e. with the Accounting Teacher in School C

1. I: Miss Wong, thank you for coming to this interview. You know, my research topic is on the mixing of languages in the classroom. Everything will be confidential, and the results will not be published in HK as my university is a British one. Miss Wong, I want to ask you if you have any feelings towards HK people mixing Chinese and English in their conversation?
2. T: I think I'm quite used to this. When I attended school, the teacher taught in Chinese although the textbooks and the exams were in English. They used English only for special terms. So I'm quite used to this.
3. I: When you teach accounting, do you usually use both languages?
4. T: The standard of my accounting class is comparatively low. Their English is rather weak. So I'll stick to Chinese as far as possible. But when it comes to English terms, I'll use the original English words.
5. I: So English is mainly for academic and technical terms. The rest in Chinese. OK. When you mix languages, do you speak complete English and Chinese sentences? Or do you insert Chinese words in English sentences, or English words in Chinese sentences? Which of these cases?
6. T: I think the main sentences are Chinese, the technical terms are in English.
7. I: Yes, yes. Do you think this would influence their learning of languages, good or bad?
8. T: The good influence is that it is easy for them to understand the subject, because after all we are a CMI school. We attend the public exam in English only for the sake of their future. They will understand the subject if taught in Chinese. But switching back and forth in Chinese and English will lessen their chance of exposure to English. And then when they have to write in English, they may not be able to do that. They are better with calculations.
9. I: So you mean if you use Chinese sentence structures in class, they will have less chance to use English?
10. T: Yes.
11. I: Then what is the influence on their written English?
12. T: Yes, they can only write very simple English.
13. I: So how can they express things when they can't put them in English?
14. T: You'll find ... actually this has to do with their English standard. Maybe they get the tenses wrong, always using the same expressions, or sometimes write unintelligible stuffs.
15.I: Do they sometimes use Chinese sentence structures?
15. T: Yes, very often they directly translate from Chinese.
16. I: Yes, this is their limitation in language.
17. T: Yes.
18. I: What about yourself? What was your major in college?
19. T: I majored in Economics.
20. I: What about the secondary school you went to? Was that EMI or CMI?
21. T: I went to an EMI school.
22. I: So you had some adjustment in using Cantonese now?
23. T: Many years ago, actually the teachers used Chinese in class. But then the students had better English. But now students failed to express in English.
24. I: What about in college?
25. T: It was the same. Some lecturers used a mix.
26. I: Was that Chinese University?
27. T: No, Hong Kong University.
28. I: O, this was not so in my days.
29. T: Some lecturers would use Cantonese in some subjects.
30. I: Thank you very much for receiving my interview, Miss Wong.

## f) with the Student from the EPA Class in School A

1. I: When you hear Hong Kong people going back and forth between Chinese and English, what feelings do you have?
2. Student (S): I think it's just normal.
3. I: Yes, normal. Nothing special. Then what about in class? When Miss Tsang teaches you EPA, would you prefer her to speak all in English, or all in Chinese, or a mixture of English and Chinese?
4. S: I prefer a mix, as I can understand better.
5. I: Yes. Then what about the actual case? Would the teacher speak Cantonese at times?
6. S: Yes.
7. I: Yes. When will she use Cantonese?
8. S: When? When the whole class can't understand the explanation of some terms, then she will use Cantonese.
9. I: The whole sentence in Cantonese?
10. S: Just a small part.
11. I: Yes. Apart from this, are there other situations in which she will speak Cantonese?
12. S: No much.
13. I: What about chatting with you?
14. S: Mostly in Cantonese when chatting with us.
15. I: What sort of talk?
16. S: About nitty-gritty things.
17. I: Any more?
18. S: Not much.
19. I: What about scolding?
20. S: Not much.
21. I: What about scolding you in EPA lesson?
22. S: Use English for scolding.
23. I: Wow, you're really cool. Then when Miss Tsang mix languages, does she say
the whole sentence in English or Chinese, or mix the two in one sentence?
24. S: The whole sentence in English.
25. I: The whole sentence in English. Will there be situations when there are mixed sentence?
26. S: No.
27. I: Do you prefer separate languages or mixed sentences?
28. S: Separate is better. It is easier for examinations.
29. I: Better for exams. Why?
30. S: If you hear much Chinese, you can't write the sentence in English.
31. I: So if you are used to hearing mixed sentences, you'll have difficulties writing complete English sentences, is that what you mean?
32. S: Yes.
33. I: What about spoken English? Will that be the same as written English? Do you find it easier to speak complete sentences if you are used to hearing them in class?
34. S: Yes.
35. I: Got it. What was your English grade when entering secondary school?
36. S: Pretty low. I don't know.
37. I: You're being very humble. Thank you very much.
g) with the Student from the History Class in School A
38. I: Henry, thank you for coming to this interview. I want to ask you what you feel about HK people who mix English and Cantonese in their ordinary speech ?
39. $S: I$ think if they always mix Cantonese and English, it is quite difficult to understand and is somewhat funny. If they use all English, I find it acceptable.
40. I: Why do you feel it's funny?
41. S: Because I feel we as Hong Kong people are a member of China, so it's OK if we all speak in Cantonese. And Hong Kong is a big city with high English standard, if you speak all in English, it's also OK. But if you mix English and Cantonese, I don't understand why you do this.
42. I: Got it. So you find it quite funny. Henry, I want to ask you when you attend History lesson, would you prefer your History teacher to teach in all English, all Chinese, or a mixture of English and Chinese?
43. S: If I can choose, I would prefer her to speak in all English, because this is in the textbook, and we can understand it. But if it is very special terms, at times it is good to explain in Cantonese. But it is no good to speak too much Cantonese.
44. I: I see. Why do you think it is no good?
45. S: Because we're an EMI school, and all our textbooks are in English. If the
teacher teach in Cantonese, we'll have problems in taking examinations.
46. I: But would it be easier for you to understand if the teacher speaks English first, and then translate into Cantonese?
47. S: Our lesson duration is limited. If you repeat the same thing in two languages, then you will waste double the time.
48. I: I see. In actual fact, does your History teacher speak Cantonese?
49. S: She seldom speaks Cantonese.
50. I: But on what occasions does she speak Cantonese?
51. S: For some specialized terms, very specialized terms, or Chinese things, which we normally describe in Chinese. If she speaks in English, it'll be somewhat difficult. So she will speak in Chinese.
52. T: Yes, I see. Apart from these, are there any occasions when she will speak Chinese?
53. S: No more.
54. T: What about chatting with you?
55. S: If it is chatting in class, then it's English. If it is after class, then it's Cantonese.
56. I: What about chatting on some personal matters?
57. S: Most of the time in English in class.
58. I: What about disciplining you, like scolding you?
59. S: She seldom scolds us, she just say sh...
60. I: O yes. When she tries to persuade you to work hard, etc. she'll still speak in English?
61. S: Yes.
62. I: And you can understand.
63. S: Yes. O, your English is really good.
64. I: OK, another question is: when your teacher speaks in Cantonese, would you prefer her to mix Cantonese and English in one sentence, or would you prefer her to speak complete English sentences and complete Cantonese sentences?
65. S: I prefer inserting Chinese into English. Because in that case the basic structure would still be English, which is fitting for the language of the curriculum design.
66. I: Would you like to have many mixed sentences in class?
67. S: Then it would not be acceptable.
68. I: Why?
69. S: Because all the textbooks are in English, I seldom memorize the terms in Chinese. It is hard to retrieve the terms from my memory and thoughts if the teacher gives a Chinese term. If the teacher speaks in English, then it is easy to refer to the textbooks.
70. I: What about for learning English ? Do you think mixed sentences will help you to learn English?
71. S: Sometimes yes. But not as good as all English. Because if we remember the English sentence structures, the Chinese words will suddenly pop up, then it's difficult. If she uses English all the time, then it's easier for memory.
72. I: That gets in the way of your memorizing the subject and the English structures, so it'll be difficult for you to write the answers in texts or examinations. Is that what you mean?
73. S: Yes.
74. I: Thank you for coming to this interview.

## h. with the Student from the EPA Class in School B

1. I: N, thank you for coming to my interview. Just wanted to tell you that everything you say here will be kept confidential and won't be publicized. So it's just very casual chat. The first question is, what would you think of people who mix Cantonese and English in their casual talk?
2. S: I think they are smart...very intelligent. And able to say something quickly in English.
3. I: You won't feel repulsive towards them?
4. S: No!
5. I: Then what about in Mrs.L's class? Would you prefer her to speak all English, or all Chinese, or a mix of both?
6. S: I hope she can speak more English. Because ours is an EMI school. If we hear more English, our English will be improved. And we can easily adapt to higher forms' English syllabus.
7. I: Then sometimes will Mrs.L speak Chinese?
8. S: Yes, sometimes when the sentence is very difficult, she will explain it in Chinese.
9. I: What are the other occasions when she speaks Chinese?
10. S: Yes, sometimes something pops up. She is afraid that we don't know how to deal with it, so she would speak Chinese.
11. I:Any more?
12. S: No more, mostly in English.
13. I: Then when your teacher speaks Chinese, would you rather she speaks chunks of Chinese, or mixing English and Chinese in one sentence?
14. S: I would rather she speaks chunks of English, or chunks of Chinese.
15. I: Why?
16. S: Because it is difficult to get used to two languages within a short time.
17. I: But then would it be easier if you have more Chinese and English in one sentence?
18. S: For some students are not very good in Chinese. Some students come back from overseas, and our English is not bad. So we won't have problem with the teacher speaking all English, or mixing chunks of Chinese and with chunks of English.
19. I: But in actuality, will Mrs.L. speak chunks of English or mixing English and Chinese in one sentence?
20. S:She speaks chunks of English.
21. I: Do you think for students to learn English, is it better for the teachers to speak chunks of English, or mixing Chinese and English in one sentence.
22. S: I think it's better to speak chunks of English.
23. I: Why?
24. S: Because chunks of English is not difficult to understand. But for mixed sentences you don't know what some words mean? I would rather she speaks chunks of English, and then if we don't understand we may ask afterwards.
25. I: Then what about listening or writing English? In what aspect can chunks of English be helpful to you?
26. S: Chunks of English... yes, you can understand more about grammar, vocabularies. If a bit of English and a bit of Chinese, you can't learn much.
27. I: That means grammar, sentence structure, you can learn more from chunks of English.
28. S: Yes.
29. I: OK. Thank you very much.

## i) with the Student from the Geography Class in School B

1. 1: Hi, good to see you. I'm going to ask you a few questions concerning classroom language in my Doctoral thesis. Everything I am going to ask will be confidential. So I hope you can say whatever you like. The first question is, what do you think of the HK people who mix English words in their Cantonese sentences in their casual talk?
2. S: I think if they always do that, they will easily write English in a Chinese way, because you are used to it. And your Grammar will be wrong.
3. I: Yes.
4. S: But sometimes it is quite convenient. Like saying 'OK', it's so common that it's difficult to change.
5. I: Does that mean that mixing languages will make your English influenced by

Chinese.
6. S: Yes, and sometimes when you write Chinese, you can't think of the Chinese word to replace the English word. Like how to say 'OK' in Chinese.
7. I: Right. So you think it's better to speak either completely in English or in Chinese.
8. S: Yes.
9. I: Then when you attend Geography lesson, would you rather your teacher use only English, or only Chinese, or a mix?
10. S: I would rather to have her explain difficult things in Cantonese. That's no problem. But most of the time, in English only, without mixing Chinese, so that we can get used to it. And our English will be better in listening or in writing.
11. I: Can you cite some examples when you switch from Cantonese to English or from English to Cantonese?
12. S: When reading maps, it is difficult to understand, you know, some students come from Chinese primary school, the teacher has to use Cantonese.
13. I: Apart from this?
14. S: About unimportant matters, for example, announcements. Sometimes after lunch, there is an announcement inside the attendance book, the teacher will read that out in Cantonese to ask students to see Mr. so and so. Or when the teacher wants to ask us to hand in exercise books, then she will use Cantonese.
15. I: Yes, yes, yes. Any other examples.
16. S: No more, most of the time she speaks English.
17. I: What about scolding people?
18. S: She seldom scolds us in our class. Depends on what the student says. If the student says he forgets to bring exercise books in English, she will scold him in English.
19. I: Normally does you geography teacher uses both English and Cantonese in a sentence, or does she speak English for a while, then change to Cantonese.
20. S: Should be the latter case. After she says something in English, if many students say they don't understand, then she will explain in Cantonese.
21. I: That means you seldom find her speak one sentence composed of both English and Chinese.
22. S: No.
23. I: Then what is your preference? Would you rather have your teacher use mixed sentences, or complete English sentences or complete Chinese sentences?
24. S: I would rather she speaks chunks of English sentences. If she mixes Cantonese into English sentences all the time, we cannot write complete sentences in our writing.
25. I: So you would rather her speak complete sentences, so that you can write complete sentences more easily.
26. S: Yes, it's difficult to get the meaning of single words uttered out in English.
27. I: Do you think there is a difference between mixed sentences and complete English or Chinese sentences?
28. S: Yes.
29. I: Yes. You think chunks of complete sentences will help you acquire English better.
30. S: Yes.
31. I: Thank you very much.

## j) : School C: Student from the Accounting Class

1. I: Thank you for coming to my interview, which I am doing for a Doctorate program in the UK. Everything you say will be confidential, and your name will not be published in HK. So you can be bolder in what you say. The first question is, when you hear HK people in their ordinary conversation mixing English and Cantonese together, what is your feeling?
2. S: It has a trendy feel.
3. I: Trendy feel. Then would you prefer your teacher use all English or all Chinese or a mix of English and Chinese?
4. S: A mix.
5. I: Why?
6. S: It's easier to understand.
7. I: Then would you prefer your teacher to use complete English sentences or English sentences with Chinese words?
8. S: An English sentence with Chinese words.
9. I: Why?
10.S: It's easier to understand. If the terminology comes with the Chinese explanation, then it's easier to understand.
10. I: Then will this help you in learning English?
11. S : Yes, there is help.
12. I: There is. Will this hinder you in learning English, like you remember all the Chinese sentence structures, then you write English in Chinese sentence structure.
13. S: Sometimes. Sometimes you write directly from Chinese word-to-word translation.
14. I: Yes, yes. Then you fail to write in English sentence structures. Then would that help you to use English sentence structure if the teacher uses complete sentence structures?
15. S: Yes.
16. I: Yes. But then you still prefer the teacher to use mixed sentences.
17. S: Yes.
18. I: Why?
19. S: It is easier to understand.
20. I: Understand the subject content is more important than learning English.
21. S: Yes.
22. I: Then what was your English grade when you entered secondary school.
23. S: B.
24. I: Thank you for attending this interview. Let's listen to the recording.
(Other interview transcripts are obtainable upon requests)
