



**HERITAGE AND NON-HERITAGE CHINESE STUDENTS' PERCEPTIONS  
OF LANGUAGE LEARNING STRATEGY USE**

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**Integrated PhD in Educational and Applied Linguistics**

**By**

**Yunzhen Liu**

**NEWCASTLE UNIVERSITY  
FACULTY OF HUMANITIES AND SOCIAL SCIENCES  
SCHOOL OF EDUCATION, COMMUNICATION AND LANGUAGE  
SCIENCES**

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**NEWCASTLE UNIVERSITY  
FACULTY OF HUMANITIES AND SOCIAL SCIENCES  
SCHOOL OF EDUCATION, COMMUNICATION AND LANGUAGE  
SCIENCES**

**DECLARATION**

I hereby certify that this thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or currently submitted for any other degree at the University of Newcastle or other institutions.

Name: Yunzhen Liu

Signature:

Date: 18<sup>th</sup>, July, 2012

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## **Abstract**

Evidence has accumulated that learning Chinese as a Foreign/Second Language (CFL/CSL) and as a Heritage Language (CHL) are not the same – it has been proposed, therefore, that different learning strategies and different pedagogy are needed for these two groups of learners. However, knowledge of CHL-specific learning strategies is incomplete, and TCHL-specific pedagogy is under development (Lynch, 2003a). The current comparative study investigates heritage and non-heritage Chinese students' perceptions of language learning strategy use. It also explores correlations among learners' individual variables, for example: their language proficiency level, motivations on learning Chinese, and language learning beliefs, together with other variables such as gender, age, mother tongue, and their perceptions of learning strategy use.

The study was conducted using both quantitative and qualitative methods. In the quantitative part, the variables of Chinese language learners and language learning strategy use were examined to explore the statistical relationship between the heritage and non-heritage Chinese language learners. After informal pre-interviews and a pilot study, a sample of 278 Chinese language students (142 non-heritages students, 117 heritage students) from eighteen mainstream British universities, colleges, and senior high schools were surveyed. The survey was carried out through three structured pencil-and-paper questionnaires, including: a background questionnaire, Horwitz's Beliefs about Language Learning Inventory (BALLI), and Oxford's Strategy Inventory for Language Learning (SILL). Statistical analyses were performed using SPSS version 17 for Windows, such as Descriptive Analyses, Independent T-Tests, Pearson Product-moment Correlations, Factor Analyses, ANOVAs, Post-hoc Multiple Comparisons, ANCOVA, and Multiple Regressions. In the qualitative phase, the variables were examined further within a semi-structured interview paradigm.

The study addresses questions of both theoretical and pedagogical significance, and makes specific proposals regarding ways to improve pedagogy for UK heritage and non-heritage Chinese students.

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## Acronyms

AFF: Affective Strategies

BACS: British Association for Chinese Study

BALLI: the Beliefs about Language Learning Inventory

BBC: British Born Chinese

BCLTS: British Chinese Language Teaching Society

CEFR: the Council of Europe's Common European Framework of Reference for  
Languages

CFL: Chinese as a Foreign Language

CFL: Chinese as a Foreign Language Learner

CHL: Chinese as a Heritage Language

CHLL: Chinese as a Heritage Language Learner

CILT: the National Center for Languages

COG: Cognitive Strategies

COM: Compensation Strategies

CSL: Chinese as a Second Language

DfES: the Department for Education and Skills

EBCL: the European Benchmark Chinese Language Project

FL: Foreign Language

FLA: Foreign Language Acquisition

FLL: Foreign Language Learner

Hanban: the National Office for Teaching Chinese as a Foreign Language

HEFCE: the Higher Education Funding Council for England

HL: Heritage Language

HLL: Heritage Language Learner

HLA: Heritage Language Acquisition

HSK/TOCFL: Hanyu Shuiping Kaoshi, also known as Test of Chinese as a Foreign Language

IPOLES: International Project on Language Learner Strategies

LLB: Language Learning Belief

LLS: Language Learner Strategies

MEM: Memory Strategies

MET: Metacognitive Strategies

NCHLL: Non-Heritage Chinese Learner

NCHL: Chinese as a Non-Heritage Language

NHL: Non-Heritage Language

NHLL: Non-Heritage Language Learner

SILL: the Strategy Inventory for Language Learning

SLA: Second Language Acquisition

SOC: Social Strategies

SSAT: Specialist Schools and Academic Trust

TCFL: Teaching Chinese as a Foreign Language

TCHL: Teaching Chinese as a Heritage Language

TCSL: Teaching Chinese as a Second Language

UKPACE: the UK Association for the Promotion of Chinese Education

UKFCS: the UK Federation of Chinese Schools



## Chapter 1: Introduction

### 1.1 Background to the Study

The Fifth Confucius Institute Conference held in Beijing in December, 2010, announced a striking growth in terms of the number of Confucius Institutions<sup>1</sup> and Confucius Classrooms. It reported that about 40 Confucius Institutes and 97 Confucius Classrooms were newly established in 2010; and a total of 322 Confucius Institutes and 369 Confucius Classrooms have been put in place in 96 countries and regions (Hanban 2010). The total number of registered students has increased by 56% over the previous year, amounting up to 360,000 in total (Hanban, 2010). In the UK, according to 2008 Annual Report by BACS – British Association for Chinese Studies, published in 2009, eleven Confucius Institutes and 14 Confucius Classrooms were established (see BACS website). The report announced that this figure is one of the highest in the world after the USA. As such, Chinese<sup>2</sup> has become an increasingly important language in the UK and in the world. More and more students from a variety of backgrounds with differing needs join in the study of Mandarin Chinese. Among these, a group of students whose mother tongue is Cantonese or Hakka requires special attention. With their knowledge of Cantonese or Hakka, along with traditional characters, this group is sometimes mixed in with other students learning Chinese. This practice has posed problems not only for tutors and classmates, but for these students as well (Kondo-Brown 2001; Chen and Che 2009). This problem has been described by Kondo-Brown (2001) as follows: “Many heritage Chinese learners<sup>3</sup> who wish to study their home language in formal school settings have no choice but to take traditional foreign language classes which may be wasting many hours for heritage language learners<sup>4</sup> attending classes which are not

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<sup>1</sup> As China's economy and exchanges with the world have seen rapid growth, there has also been a sharp increase in the world's demands for Chinese learning. Benefiting from the UK, France, Germany and Spain's experience in promoting their national languages, China began its own exploration through establishing non-profit public institutions which aim to promote Chinese language and culture in foreign countries in 2004: these were given the name the Confucius Institute. (see Confucius Institute Online).

<sup>2</sup> Please see Section 1.4 for the definition of ‘Chinese’

<sup>3</sup> Please see Section 1.4 for the definition of ‘Heritage Chinese Learners’

<sup>4</sup> Please see Section 1.4 for the definition of ‘Heritage Language Learners’

tailored to meet their special needs” (p. 157 – 158). The problem of teaching students with special needs, such as heritage and non-heritage students, has become an urgent challenge: what distinguishes heritage Chinese students from other students, and is it appropriate to teach them in the same way that we teach non-heritage Chinese students, traditionally referred to as “Chinese as foreign language students”? V. J. Cook (2001, 2009b) pointed out that we cannot teach very well if we do not know how it is that people learn, and teaching is only successful if it promotes learning in students (2009b, p. 139). Likewise, we will not be able to teach heritage Chinese students well if we do not know, for instance, what motivates them to learn and how they learn.

The current study was undertaken to address this problem. Its aim was to understand adult heritage Chinese students, including young adults, studying Chinese at higher education institutions, colleges, and senior high schools, and to understand what differences obtain between adult heritage and non-heritage Chinese students, including young adults, at higher education institutions (HEI), colleges, and senior high schools. It was hoped that this study would yield useful theoretical and pedagogical insights.

## **1.2 Rationale of the Study**

Research on English as a Second Language Acquisition has flourished during the past few decades. However, as a new discipline, Chinese as a Foreign/Second Language (CFL/CSL) can boast only 20 years of history (Y. Wu 2004a, 2004b; J. W. Shi 2006). Research in this area has not only been limited, but to some degree unbalanced. Most CFL/CSL research has been conducted in the U.S and China. The subject has received scant attention in other countries, including the UK. It is imperative that research in this discipline is conducted in a wider context.

In the US, research has been conducted chiefly in the following areas: (1) the acquisition of Chinese pinyin; (2) the learning of Chinese characters; (3) the teaching of reading and writing; (4) the acquisition of grammar. In addition, there has been

significant research on non-cognitive factors, such as classroom environment and motivation, the acquisition of pragmatic Chinese and Chinese language testing and assessment (Ke and Shen 2003).

In China, most CFL/CSL research has focused on error analysis, and transference of first language. Affective factors such as individual differences and learner strategies have been investigated meagerly (Cui 2005; J. W. Shi 2006; Xu 2004; Zhao 2000), despite a growing body of evidence suggesting that foreign language learners are highly influenced by affective factors (Gardner 1985, 1992; Gardner and MacIntyre 1987; Horwitz 1988, 1999, 2001). J. W. Shi (2006) listed nine research areas where little research has been conducted. One of these is the study of Chinese Language Learners' Strategies. This is also true internationally even though learning strategies on studying English as a Second Language (ESL) have received much attention. Y. Wu (2004b) also reported that research on CFL/CSL learning strategies has attracted little attention across the world (p. 68). Within the available body of research, scholars have hoped to discover successful learning strategies through studies of good language learners learning strategies. However, J. W. Shi (2006) argued that we should not neglect unsuccessful learners' learning strategies. She proposed that research in this area should be developed further, investigating topics such as: what constitutes a learning strategy; how one defines it; and how the development of learning strategies affects the learners' acquisition of Chinese (p. 22).

In addition, learning Chinese as a Foreign Language and learning Chinese as a Heritage Language are two different things (Campbell et. al. 2000; Lynch 2003a). Kondo-Brown (2005) for example, stressed the importance of recognizing the distinctive needs of HL Learners and traditional FL students' (p. 564).

Brecht and Ingold (2002) argued that heritage language speakers possess linguistic and cultural skills rarely attained by non-heritage language speakers. The language learning behaviors and needs of heritage language learners are distinctly different from those of traditional foreign language learners<sup>5</sup> (please refer to Section 3.2.2 to

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<sup>5</sup> The learning behaviors and needs are not only distinctly different between heritage and non-heritage

see the differences between these two groups). However, as Kondo-Brown (2008) observed, we know much less about heritage language learners than we do about foreign language learners (p. 17).

The need for research on heritage languages now widely recognized, and heritage language instruction is now becoming a legitimate sub discipline within the field of foreign language education (Kagan and Dillon 2001). In addition, there is a trend in foreign language education away from teaching only the traditional European foreign languages and toward a greater emphasis on the less commonly taught languages, such as Biblical Hebrew, Korean, Arabic, and Chinese (Deusen-Scholl 2003). This is not less so in the UK (see Chapter Four for the information on the current state of teaching and learning Chinese in the UK). Consequently, a series of changes have occurred in recent years. For example in the US, heritage languages such as Chinese, has been recognized as a national resource (Xiao 2009).

A report published by CILT (2006), the National Centre for Languages, highlighted the contribution of community languages<sup>6</sup>, for instance Chinese, to UK education and society. These community languages provide linguistic resources, educational resources, intellectual resources, cultural resources, family and personal resources, and economic resources to the nation.

An up-to-date linguistic map of the UK is included in the CILT (2006) report, highlighting the fact that language variety is spreading to parts of the country where previously few languages other than English were spoken. For example, Newcastle-upon-Tyne is the most multilingual authority in the North East, with seventy languages spoken; London is among the most multilingual cities in the world, with over 300 languages spoken (CILT 2006). Moreover, according to CILT's report, bilingual children are far more likely to get top-grade passes in exams in all subjects.

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language learners; but there may also be differences among HLLs from different sub-categories, for example Cantonese and Hakka learners. However, restricted by the data obtained for the current study what we could do was to compare HLLs with NHLLs. It will be another interesting research topic to compare sub-categories of HLLs in future.

<sup>6</sup> 'Heritage Language' is usually the term in the US. In the UK, 'Community Language', or 'Minority Language', or 'Mother-Tongue', are more commonly used (Barradas 2004; Duff and Li 2009; He 2008a, 2008b).

For instance, Portuguese children at secondary schools in London who were encouraged to continue the study of their native language were five times as likely to achieve five top grade A\* to C grade passes at GCSE (CILT 2006). However, as it was not indicated in the report, we do not know whether these grades result was purely due to students' being bilingual or whether there were other factors affecting these differences. It is hoped that this issue will be investigated in future.

Furthermore, heritage Chinese specific pedagogy remains in the early stages of development, and knowledge of heritage Chinese students' characteristics, such as their motivations in learning Chinese, their beliefs on language learning, or their perceptions of Chinese language learning strategies, is incomplete. A comparative study of heritage and non-heritage Chinese learners' learning strategies in studying Chinese, such as the current study undertakes, may yield insights into the pedagogical needs of heritage Chinese students. The current study further assists better understanding of one of UK community languages, i.e., Mandarin Chinese, by examining differences between adult, including young adult, heritage and non-heritage Chinese students' learning strategies in studying Chinese at higher education institutions, colleges, and senior high schools in the UK.

### **1.3 Purpose of the Study**

This project was undertaken with the above considerations in mind. As Y. Wu (2004b) argued, the purpose of studying CFL/CSL learning strategies is to optimize our pedagogical methods (p. 72). The purpose of this study was to investigate young adult heritage and non-heritage Chinese learners' learning strategies in studying Chinese at higher education institutions, colleges, and senior high schools. It was intended to supplement gaps in the theoretical literature, and to promote an understanding of CFL/CSL learners' individual variables and their learning strategies. Ultimately this study sought to enhance the effectiveness of teaching and learning Chinese. It was our hope, therefore, that this study will contribute to the area of teaching and learning Chinese as a Foreign/Second Language, and Second Language Acquisition.

#### **1. 4 Definitions of the Key Terms**

Before we move on to the next part, it will be necessary to define some of the terms employed in this study. These terms are defined below:

##### **Language Learner Strategies (LLS)**

There are many definitions for the term “Language Learner Strategies (LLS)”. For the purpose of the current study, we accept Oxford’s definition (1990) as our working definition: we refer to “Learner Strategies” as “... specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations” (Oxford 1990, p. 8).

##### **Chinese**

In language teaching programmes the term “Chinese” is usually assumed to mean Mandarin Chinese (Wiley 2009; Wiley et al. 2008). To linguists, for example, Comanaru and Noels (2009), He (2006), W. Li (1994), Wiley et.al. (2008), Xiao (2009), and Yuan (2001), to name a few, “Chinese” is an umbrella term that subsumes numerous *fangyan* or in another word, dialects, grouped under categories such as Wu, Xiang, Gan, Min, Cantonese, Hakka, and Mandarin. W. Li, professor of Applied Linguistics at Birkbeck College, University of London, explained that these *fangyan* or dialects are categorized based on geographical and linguistic-structural characteristics (1994). Many of these *fangyan* or dialects are incomprehensible to one another. In his widely used renowned textbook “An Overview of Chinese *Fanyan*/Dialects” for Chinese linguists at higher education institutions, Yuan (2001), an eminent Chinese linguist, offered elaborate description on these seven dialects, including Cantonese and Hakka. “Mandarin” or “Mandarin Chinese”, also known as *Putonghua* (普通话) in mainland China, *guoyu* (国语) in Taiwan, and *huayu* (华语) in Singapore, refers to the official *fangyan* or dialect family in China. It serves as the standard dialect, whose pronunciation and grammar are associated with speech from regions that for centuries have enjoyed political and cultural significance, such as Beijing and the surrounding areas. Mandarin Chinese is used in terms of the lexicon, phonetics, and discourse norms in the mainland, Taiwan, and Singapore. In addition, there are two variants of a single writing system: the simplified script,

officially used in mainland China and Singapore, and the traditional script, mainly used in other Chinese-speaking regions (He 2006). For the purposes of the current study, “Chinese” referred to “Mandarin Chinese” written in simplified form, and both terms were used interchangeably.

Cantonese and Hakka have long been regarded as dialects of “Chinese” (Yuan 2001). Yet, some non-Chinese mother tongue linguists tend to consider Cantonese and Hakka as languages instead of dialects. Some regarded a language as ‘a dialect with an army and navy’ (Weinreich 1980). However, for other linguists, for example, John R. Rickford, a J.E. Wallace Sterling Professor of Linguistics and the Humanities at Stanford University, “Dialect is a neutral term to refer to the systematic usage of a group of speakers – those in a particular region or social class, for instance – and that the term has within linguistics none of the negative connotations” (Rickford 2002). It is beyond our scope to discuss whether Cantonese and Hakka should be regarded as languages or dialects. In the current study, we accept Comanaru and Noels (2009), He (2006), W. Li (1994), Wiley et.al. (2008), Xiao (2009), and Yuan’s (2001) view that Cantonese and Hakka are dialects of “Chinese”, on which our study was based.

### **Heritage Language Learner (HLL)**

Valdes (2001) distinguished two types of HLL. One type is those “individuals having historical or personal connection to a language such as an endangered indigenous language or immigrant language that is not normally taught in school” (p. 37).

However, many HLLs of this type may hardly speak the language, nor do their immediate family members speak it, for example, a British-born Chinese who had a Chinese spoken grandparent or great grandparent or great great grandparent. The other type applies to a person “who is raised in homes where a non-English language is spoken, and who speaks or at least understands the language and who is to some degree bilingual in that language and English” (Valdes 2001, p. 38). This type of HLLs will have achieved some degree of bilingual proficiency (Kondo-Brown 2005, p. 564). For the purposes of the current study, the latter definition was adopted.

Many researchers, such as Noels (2005), Comanaru and Noels (2009), and Weger-Guntharp (2008), all adopted the latter definition to distinguish heritage and non-

heritage learners.

### **Chinese Heritage Language Learner (CHLL)**

In the light of heritage language learner, Xiao (2009) defined “Chinese Heritage Language Learner” as: “students who have family background in Chinese language and culture” (p. 175). Likewise, Weger-Guntharp (2006) defined it as “an individual who has one or more parents who speak Chinese as their first language” (p. 31). Weger-Guntharp’s definition was also used in response to recent findings by Wiley and his colleagues (2008) that 766 immigrants and international students in the US showed a considerable degree of acceptance toward language diversity generally, and heritage language and [mandarin] Chinese heritage language specifically (Wiley et al. 2008, p. 67). Comanaru and Noels (2009) defined this term, “Chinese Heritage Language Learner”, similarly. In Comanaru and Noels’ study (2009), “if at least one parent was a native speaker of Chinese, the participant was classified as an HL [Chinese] learner” (p. 137). In the current study, we define “Chinese Heritage Language Learner” as learners who have one or more parents who speak Chinese – including any dialect of Chinese, as their mother tongue.

### **Intrinsic Motivation**

Ryan and Deci (2000) defined “Intrinsic Motivation” as “doing something because it is inherently interesting or enjoyable” (p. 55). They pointed out that “when intrinsically motivated, a person is moved to act for the fun or challenge entailed rather than because of external products, pressures or reward” (Ryan and Deci 2000, p. 56). In the current study, we referred to “Intrinsic Motivation” as internalized values deriving from a student him/herself and that motivate him/her to study the Chinese language.

### **Extrinsic Motivation**

Ryan and Deci (2000) defined “Extrinsic Motivation” as “doing something because it leads to a separable outcome” (p. 55). They pointed out that “extrinsic motivation contrasts with intrinsic motivation, which refers to doing an activity simply for the enjoyment of the activity itself, rather than its instrumental value” (Ryan and Deci



2000, p. 60). In the current study, “Extrinsic Motivation” was understood to refer to factors external to a student, and that motivated him/her to study the Chinese language.

### **1. 5 Outline of the Study**

The current study was organized as following:

Chapter Two is a review of the literature on Language Learner Strategies (LLS). We first look at LLS in general, including the background, definition, classification, characteristics of LLS, and research methods on LLS. We then look at research on L2 LLS, discussing those factors thought to affect LLS, such as cultural background; language proficiency; motivation; and language learning beliefs, including research methods in LLB, followed by examining other factors that might affect LLS, such as gender, age, and mother tongue. In the third part of this chapter, we look at LLS in studying Chinese as a Foreign/Second Language. In this part, we review research methods on LLS in CFL/CSL, i.e.: we consider how scholars conducted research in LLS in studying Chinese as a Foreign/Second Language. In this Section, we then look at seven scholarly studies investigating Language Learning Strategies in studying Chinese as a Foreign/Second Language. The fourth part of this chapter is a review of critiques and development in LLS research.

Chapter Three reviews the literature on heritage language learning. We first look at heritage language research in general, including its definition and differences between Second Language, Foreign Language, and Heritage Language Acquisition. We then review research on Heritage Language Acquisition from the perspective of heritage students’ learning needs, their motivations in studying a heritage language, their LLS, and their LLB. In addition, we also look at research methods for the study of heritage language learning in this part. In the third part of this chapter, we look at available research on Chinese as a heritage language, which includes: heritage Chinese students learning needs, their motivations and their language learning beliefs in studying Chinese. At the end of this chapter, we look at heritage language

study in the UK. This Section includes eight scholars' studies and one government research document.

Chapter Four investigates teaching and learning Chinese in the UK. It includes three parts: 1) teaching and learning Chinese as a foreign language in the UK; 2) teaching and learning Chinese as a heritage language in the UK; and 3) some special features of teaching and learning Chinese in the UK.

Chapter Five introduces the current study's research methods. It begins with research questions and hypotheses. It then considered: research design; informal pre-interviews and pilot study; the main study-quantitative Section; and the main study-qualitative Section.

Chapter Six presents the results and discussion of the quantitative study. It begins by reviewing the reliability of the scales and statistics of the participants' background information so as to provide general information about the study. It then presents the results in relation to the six research questions, interspersed with broader discussion of the findings throughout.

Chapter Seven presents the results and the discussion of the qualitative study. Considering each participant's responses with regard to the research questions, we include six parts in this chapter: introduction; students' motivations in studying Chinese; students' beliefs on studying Chinese; students' perceptions of strategies in studying Chinese; students' views on relationships between motivations, beliefs, and learning strategies in studying Chinese, interspersed with discussion when necessary, followed by a broader discussion at the end of the chapter.

Chapter Eight provides a summary and conclusion for the current study. It first summarizes the main findings. It then looks at the significance of the study from theoretical and pedagogical perspectives. It also reflects upon the limitations of the study and provides suggestions for further research, followed by a conclusion of the whole study.

## **Summary**

In this chapter we have briefly introduced the present study, including the background and the rationale of the study; the purpose of the study; and definitions of key terms used in this study. In the following chapter, we will review the literature on language learner strategies, including L2 LLS and LLS in studying Chinese as a Foreign/Second Language.

## Chapter 2: Literature Review on Language Learner Strategies

### 2.1. Introduction

In this chapter, the relevant literature on language learner strategies (LLS) is reviewed. We first examine LLS in general, including research methods in LLS. We then look at research on L2 LLS, discussing those factors thought to affect LLS, such as cultural background; language proficiency; motivation; and language learning beliefs, including research methods in LLB, followed by examining other factors that might affect LLS, such as gender, age and mother tongue. Next, attention is turned to research methods for investigating LLS in studying Chinese as a Foreign/Second Language, and then research on LLS in studying Chinese as a Foreign/Second Language, concluding with a review of seven scholarly studies investigating learning strategies in studying Chinese as a Foreign/Second Language, i.e. non-heritage Chinese learners' (or in other words, foreign language learners) learning strategies in studying Chinese, (we will review research on heritage Chinese language learners in the next chapter). The fourth part of this chapter is a review of critiques and development of LLS.

#### 2.1.1 *General Background to Language Learner Strategies Research*

Some have claimed that “the development of language learning strategies is mainly a by-product of mediation and socialization into a community of language learning practice” (Donato and McCormick 1994, p. 453). Researchers, Cohen and Macaro (2007), for example, argued that the term “Language Learner Strategies” was probably never used before June, 2004; instead they were simply called “Learning Strategies”<sup>7</sup>, “Learner Strategies”<sup>8</sup>, and “Language Learning Strategies”<sup>9</sup> (Cohen

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<sup>7</sup> See for example: Aharony 2006; Carson and Longhini 2002; Halbach 2000; Gan 2009; Gu 2002, 2005; and Takeuchi 2003.

<sup>8</sup> See for example: Lee and Oxford 2008; Li 2007; Phakiti 2003; and Wenden and Rubin 1987.

<sup>9</sup> See for example: Akbari and Hosseini 2008; Chamot 2004, 2005; Cohen 1995; Donato and McCormick 1994; Gao 2006a, 2006b; Grainger 2005; Griffiths 2004, 2007; Griffiths and Parr 2001; Hsiao and Oxford 2002; MacIntyre and Noels 1996; Oxford 1989, 1996a, 1996b, 2003a, 2003b; Oxford and Burry-Stock 1995; Purdue and Oliver 1999; Roehr 2004; Sheorey 1999; Tseng, et al. 2006; Rao 2006; and Wharton 2000.

and Macaro 2007, p. 2). Among these different terms, researchers use “Language Learning Strategies” the most, as can be seen from the references in the footnotes. Some use the terms interchangeably<sup>10</sup>.

However, language learner strategy research has a long, multifaceted, and controversial history. It began in the 1960s. The first attempt at investigating learner strategies was “The Method of Inference in Foreign Language Study” published by Aaron Carton in 1966 (Rubin 1975). It was followed by a series of empirical studies on good language learners in the mid-1970s (Rubin 1975; Stern 1975; Naiman et al. 1978). In 1971, Rubin began doing research on successful learners’ strategies. Rubin’s article: “What the ‘Good Language Learner’ Can Teach Us” announced the birth of strategy research (Cohen and Macaro 2007). By observing students in classrooms, by observing the researcher herself, by talking to other good language learners, and by eliciting observations from some second language teachers, she detected two techniques and approaches employed by successful language learners (Rubin 1975, 1981). Six processes contributed directly to learning and two processes contributed indirectly to learning (Rubin 1975; 1981).

The direct approaches to learning are:

- 1) Clarification and verification, such as asking about the correct form to use or asking for differences between two words/phrases;
- 2) Monitoring, such as observing and analyzing language use of others to see how messages are interpreted by the addressee;
- 3) Memorization, for instance, pronouncing out loud;
- 4) Guessing or inductive inference, e.g., using clues from pictures to guess the meaning;
- 5) Deductive reasoning, such as inferring grammatical rules by analogy; and
- 6) Practice, such as repeating sentences until produced easily.

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<sup>10</sup> See for example: Chamot 2004, 2005; Embi et al. 2001; Gamage 2003; Li and Qin 2006; and Petric and Czarl 2003.

The indirect approaches include:

- 1) Creating opportunities for practice, for example initiating conversations with fellow student/teacher/native speakers; and
  - 2) Production tricks related to communication, for instance using gestures to communicate meaning
- (Rubin 1981, p. 124 – 125)

Rubin's classification was a pioneer in LLS research. Numerous studies and research later refer to it. However, the six processes contributing to direct approach and two processes contributing to indirect approach were not ideal. Oxford (1989) adopted Rubin's approaches and included three sub-groups for each: direct strategy consisting of memory, cognitive, and compensation strategies and indirect strategy consisting of metacognitive, affective, and social strategies (see Section 2.1.2). Despite various weaknesses criticized by some scholars, for example, Tseng, Dörnyei and Schmitt (2006), this classification was in fact an enhancement to Rubin's (see Section 2.4.1), because it extended and rectified earlier work.

Research on LLS was influenced particularly by developments in cognitive psychology (Hismanoglu 2000). The primary concern in most research on LLS has been to identify the learning practices reported by successful language learners, or to observe what good language learners do to succeed (Wenden and Rubin 1987, p. 19). Macaro (2009) maintained that there have been two lines of development contributing to the birth of LLS research: one line starting with a shift in researchers' attention away from teacher and from the method of teaching; and the second line being a gradual change in the beliefs of researchers, practitioners, and policy makers regarding what learning a language was actually all about. From this point of view, as it focused on students instead of teachers, the current study is hoped to be in the first line of advancement of LLS research.

### ***2.1.2. Definition, Classification, and Characteristics of Language Learner Strategies***

#### **Definition of Language Learner Strategies**

Ever since Rubin (1975, 1981) introduced the concept of language learning strategies, the term has been notoriously difficult to define. Wenden and Rubin (1987) described it as “the elusive nature of the term” (p. 7). Observing that there was considerable debate as to appropriate ways of defining language learning strategies, Ellis (1994) described the concept as “fuzzy” (p. 529). Other researchers, Gu (2005), for example, pointed out that the concept of LLS is fluid. Macaro (2007) also pointed out that LLS has been defined very loosely such that all kinds of learner behaviours, such as mental behaviour, affective responses, and overt physical actions, have been bunched together. He further argued that “the loose definition of the strategy concept has meant that strategies have been confused, or used interchangeably, with ‘processes’, or they have been juxtaposed with ‘processes’ but the differences between them never defined” (Macaro 2007, p. 239).

Earlier researchers either used their own observations to describe language learning strategies, relying on categories derived from research in first language contexts, or developed a comprehensive list of learning strategies derived from multiple sources (Rubin 1975; Stern 1975). For instance, Rubin (1975) defined language learning strategies as “any set of operations, steps, plans, or routines used by the learner to facilitate the obtaining, storage, retrieval and use of information” (p. 19). She classified strategies in terms of processes contributing directly or indirectly to language learning (see above).

More recently, strategy identification and classification have been data-driven, for instance through think-aloud protocol analysis (O’Malley and Chamot 1990; Oxford 1990; Chamot and El-Dinary 1999). For example, O’Malley and Chamot (1990) defined learning strategies as “the special thoughts or behaviours that individuals use to help them comprehend, learn, or retain new information” (p. 1).

Recognizing the element of consciousness as key to distinguishing strategic from non-strategic thinking processes, Cohen (1998) proposed that learning strategies are “processes which are consciously selected by learners and which may result in actions taken to enhance the learning or use of a second or foreign language through the storage, retention, recall, and application of information about that language” (p. 4). Macaro (2004), however, suggested that learner strategies are operationalized in working memory with the central executive exerting control over their deployment.

LLS research has therefore often proceeded in an ad hoc manner with researchers providing their own particular definitions for their research purpose under specific research contexts. The definition and terminology of LLS remain among the most important issues in research on language learning strategies (Grenfell and Macaro 2007, p. 9). Some researchers, for example, Macaro (2004) argued that: “an all-encompassing definition for strategies is virtually impossible both semantically and within our current knowledge of conscious, sub-conscious and neurological mental activity” (p. 2 – 3). This situation has perpetuated controversy regarding the definition and classification of the term.

Two contrasting views on how to define “Learner Strategy” emerged at the 2004 IPOLLS<sup>11</sup> meeting. One view is that “strategies need to be specific, small, and most likely combined with other strategies for completing a given task”; the other view is that “strategies need to be kept at a more global, flexible, and general level” (Cohen and Macaro 2007, p. 43). However, no consensus definition was reached at the IPOLLS meeting.

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<sup>11</sup> IPOLLS: International Project on Language Learner Strategies. In Sep, 2004, a three-day IPOLLS meeting was held in Oxford, on which Cohen and Macaro’s edited book (2007) was based. Twenty-three internationally known scholars and experts in the field of language learner strategies gathered at the meeting, working on a number of issues such as:

- Definitions of strategies and their prototypical features
- Bipolar distinctions in the strategy field
- Concepts related to learner strategies
- The purposes of language learner strategies
- The role of strategy instruction
- Directions and methods for learner strategy research  
(Cohen and Macaro 2007; Cohen 2005, p. 4)



Presumably, in order to carry out effective research on “strategies”, a scientific definition of “strategy” eventually will be necessary. How to define LLS should be the future concern of investigation. For the present, we accept Oxford’s definition (1990) – one of the most frequently cited and applied definitions of learning strategies to date, as our working definition. We refer “Learner Strategies” as “... specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations” (Oxford 1990, p. 8).

### **Classification of Language Learner Strategies**

Apart from a multiplicity of definitions for strategies, there are also diverse ways to categorize those that have been identified. Chamot (2004) pointed out that LLS classification schemes, for the most part, have been developed with research in mind (p. 17). Among many LLS researchers, the most adopted classifications are those proposed by O’Malley and Chamot (1990), and Oxford (1990).

O’Malley and Chamot (1990) divided language learning strategies into three main subcategories: metacognitive strategies, such as monitoring one’s own speech and the kind of strategies involving planning and thinking about learning; cognitive strategies, for instance note-taking and similar strategies involving conscious ways of tackling learning; and socio-affective strategies, for example asking the teacher’s help and the type strategies involving interacting with others.

Oxford (1990) classified strategies into two groups and six types: direct strategies that directly involve the target language and indirect strategies that underpin the business of language learning without directly involving the target language. Direct strategies include memory, cognitive, and compensation strategies. Indirect strategies include metacognitive, social, and affective strategies. The definitions for each type of strategy are as below according to Oxford (1990):

Direct strategies include:

- Memory strategies, such as grouping or using imagery, have a highly specific function: helping students store and retrieve new information.
- Cognitive strategies, such as summarizing or reasoning deductively, enable learners to understand and produce new language by many different means.
- Compensation strategies, like guessing or using synonyms, allow learners to use the language despite their often large gaps in knowledge.

(Oxford 1990, p. 37)

Indirect strategies include:

- Metacognitive strategies are those strategies allowing learners to control their own cognition, i.e. to coordinate the learning process by using functions such as centering, arranging, planning, and evaluating.
- Affective strategies help to regulate emotions, motivations, and attitudes.
- Social strategies help students learn through interaction with others.

(Oxford 1990, p. 135)

Compared to O'Malley and Chamot's classification, Oxford's are straightforward and more complete. Xiao and Oxford (2002) evaluated three systems used in the field: those of Rubin (1981), O'Malley and Chamot (1990), and Oxford (1990). The evidence revealed that the Oxford (1990) system of six basic types of language learning strategies – metacognitive, cognitive, memory, compensation, social and affective – is more consistent with other classifications in accounting for the variety of strategies reported by language learners (p. 378). For these reasons, the current study adopted the Oxford (1990) classification system. More about Oxford's SILL – the Strategy Inventory for Language Learning is discussed in Section 2.1.3.

### **Characteristics of Language Learner Strategies**

Macaro (2004) classified learner strategies as conscious mental activity. He argued that strategies must contain not only an action, but a goal (or an intention) and a learning situation. He proposed 14 features required in order to identify and describe a strategy. Macaro's 14 features of LLS (2004) provided insight with regard to how

to define the term. At the 2004 IPOLLS meeting, the LLS experts agreed that six features are essential in describing a strategy (Cohen 2005, p. 4 – 7):

- 1) For a strategy to be effective in promoting learning or improved performance, it must be combined with other strategies either simultaneously or in sequence, thus forming strategy clusters;
- 2) Strategy clusters include and are evaluated via a metacognitive strategy or series of metacognitive strategies;
- 3) A strategy's description requires the specification of a clear goal, goals, or intentions;
- 4) A strategy must have a metacognitive component whereby the learner consciously and intentionally attends selectively to a learning task, analyzes the situation and task, plans for a course of action, monitors the execution of the plan, and evaluates the effectiveness of the whole process;
- 5) A strategy's potential for leading to learning must be proposed, even if only at the level of a hypothesis;
- 6) Learners need to be explicit in a given learning situation about the action component.

These provide researchers and scholars with valuable insights and guidelines for defining the term and applying it to research. Yet, how to define the term remains an ongoing debate with no consensus. Before a scientific definition may be consented, Oxford's definition (1990) was adopted as the working definition in the current study (see Section 1.4).

### **2.1.3 Research Methods on LLS**

Cohen and Scott (1996) argued that no single assessment method prevails in the field of language learner strategies: some research methods are well established but imperfect, while other methods have not yet been fully explored (p. 89). Chamot (2004) observed that the only way to identify learners' language learning strategies – a learners' mental processing, is through self-report (p. 15). She believed that the most frequent and efficient method for identifying students' learning strategies is through questionnaires; other frequently used methods are retrospective interviews,

simulated recall interviews, written diaries and journals, and think-aloud protocols concurrent with a learning task (Chamot 2004, 2005). Adapted from Liu (2005), an outline of data collection methods by L2 learning strategy researchers is shown at the Table 2.1 below.

**Table 2.1: Overview of Data Collection Methods by L2 Learner Strategy Researchers (Liu 2005, p. 47)**

<b>Researchers</b>	<b>Data Collection Method</b>
Rubin (1975)	Observation; Intuition
Naiman <i>et al.</i> (1978; 1995)	Interview; Questionnaire; Observation
Rubin (1981)	Observation; Diary
Oxford and Nyikos (1989)	Questionnaire – SILL
O’Malley and Chamot (1990)	Interview; Observation; Think-aloud
Green and Oxford (1995)	Questionnaire – SILL
Anderson and Vandergrift (1996)	Think-aloud
Carson and Longhini (2002)	Diary
Halbach (2000)	Learning Diary
Chang (2003)	Questionnaire – SILL
Gu, Hu, and Zhang (2005)	Think-aloud, more precisely, probed introspective verbal report

However, due to the fact that each individual learner has his/her own approaches to learning and learning strategies, therefore each assessment method has its advantages and disadvantages. The advantages and disadvantages of each method have been discussed extensively in the L2 learning strategy literature (Cohen and Scott 1996; Oxford 1990; O’Malley and Chamot 1990; Cohen and Macaro 2007). In general, questionnaire and the verbal self-report (or think-aloud protocol) have been the two main approaches to strategy elicitation (Macaro 2009). Table 2.2 below shows advantages and disadvantages of using these two L2 learning strategy data collection methods (adapted from Liu 2005, p. 48 – 50):

**Table 2.2: Advantages and Disadvantages of Using Questionnaire and Think Aloud Protocol, Adapted from Liu (2005, p. 48 – 50)**

QU	AD	<ol style="list-style-type: none"> <li>1. May provide a general assessment of strategies used across a wide variety of possible tasks.</li> <li>2. May enable researchers to generate and test hypotheses through larger scale survey.</li> <li>3. Representative data.</li> <li>4. Anonymity assures more reliable data.</li> <li>5. Uniformly organized data is more easily dealt with statistically.</li> <li>6. Many convenient ways to administer.</li> <li>7. The most cost-effective strategy assessment method.</li> <li>8. Non-threatening under conditions of confidentiality.</li> <li>9. Each group summary or comparison.</li> </ol>
	DA	<ol style="list-style-type: none"> <li>1. Close-ended questions do not provide learners with much freedom to reveal in-depth ideas.</li> <li>2. May not be able to provide detailed information on strategies used relating to a specific language learning task.</li> <li>3. Some questions may be left unanswered for no obvious reason.</li> <li>4. Limited interaction between researcher and subjects makes it difficult to elicit information in case of ambiguity on the spot which may affect the reliability of the data.</li> </ol>
TA	AD	<ol style="list-style-type: none"> <li>1. May provide detailed information on specific learning task.</li> </ol>
	DA	<ol style="list-style-type: none"> <li>1. Data only reflects strategies related to the task at hand, not a general portrait of the individual's strategy use <i>in toto</i>.</li> <li>2. Subjects may rely on background knowledge and opinions about a topic rather than what they actually did.</li> <li>3. Unedited data thus difficult to synthesize.</li> <li>4. Some learners may not be able to articulate the strategies being used.</li> <li>5. Time consuming and costly.</li> <li>6. Respondents may produce unreliable verbal reports.</li> <li>7. Verbal reporting has intrusive effects.</li> <li>8. Respondents may differ in their ability to verbalise.</li> <li>9. Weaker students may find it difficult to verbalise in L2.</li> <li>10. Respondents may be too engrossed in task and forget to verbalise.</li> <li>11. Respondents may not be able to remember mental events after performance and may give faulty reporting.</li> </ol>

*Note: QU=Questionnaire; TA=Think Aloud; AD=Advantages; DA=Disadvantages*

This table indicated that questionnaires and think-aloud protocol (TAP) can produce different results. With regard to language learning strategies, TAP can only provide detailed information on the specific learning task at hand, rather than a general portrait of the individual's strategy use *in toto*. However, questionnaires may provide a general assessment of strategies used across a variety of possible tasks and may enable researchers to generate and test hypotheses through larger scale surveys. In addition, the uniformly organized questionnaires data enables researchers to deal more easily with statistical data. In consideration of the advantages that may be offered by the use of questionnaires, this method was applied to the current study to investigate students' LLS, instead of the think aloud method.

Macaro (2009) divides LLS questionnaires into two types: the general questionnaire, designed to assess the overall strategic behavior of the learner, such as SILL: the Strategy Inventory for Language Learning, developed by Oxford (1990); and questionnaires designed to assess specific skills or tasks (p. 18).

The greater numbers of descriptive studies have utilized SILL (Cohen et al. 1998; Macaro 2009; Nyikos and Oxford 1993; Olivares-Cuhat 2002; Oxford 1990, 1996; Oxford and Burry-Stock 1995; Tseng, Dörnyei and Schmitt 2006; Wharton 2000). This instrument has been used in studies that correlate strategy use with variables such as learning styles, gender, proficiency level, and culture (Green and Oxford 1995; Nyikos and Oxford 1993; Oxford and Burry-Stock 1995; Wharton 2000). The SILL instrument has two versions: version 5.1 and version 7.0. Version 5.1 consisting of 80 items, was designed for English speakers learning a new language. Version 7.0 consisting of 50 items, was designed for speakers of other languages learning English. Both versions include six parts that measure the frequency of six types of strategies: memory, cognitive, compensation, metacognitive, affective and social strategy (please refer to the Section 2.1.2 for more information on Oxford's six classifications).

The six parts' allocations in Version 5.1 are:

- Part A, from item 1 to 15, is Memory Strategies, e.g.: *I create associations between new material and what I already know.*
- Part B, from Item 16 to 40, is Cognitive Strategies, e.g.: *I say or write new expressions repeatedly to practice them.*
- Part C, from Item 41 to 48, is Compensation Strategies, e.g.: *When I cannot think of the correct expression to say or write, I find a different way to express the idea, for example, I use a synonym or describe the idea.*
- Part D, from Item 49 to 64, is Metacognitive Strategies, e.g.: *I try to notice my language errors and find out the reasons for them.*
- Part E, from Item 65 to 71, is Affective Strategies, e.g.: *I try to relax whenever I feel anxious about using the new language.*
- Part F, from Item 72 to 80, is Social Strategies, e.g.: *When I am talking with a native speaker, I try to let him or her know when I need help.*

The six parts' allocations in Version 7.0 are:

- Questions 1 to 9 are memory strategies, e.g.: *I use rhymes to remember new English words.*
- Questions 10 to 23 are cognitive strategies, e.g.: *I say or write new English words several times.*
- Questions 24 to 29 are compensation strategies, e.g.: *To understand unfamiliar English words, I make guesses.*
- Questions 30 to 38 are metacognitive strategies, e.g.: *I try to find as many ways as I can to use my English.*
- Questions 39 to 44 are affective strategies, e.g.: *I try to relax whenever I feel afraid of using English.*
- Questions 45 to 50 are social strategies, e.g.: *I ask an English speaker to correct me when I talk.*

Each item for either version is scored from one to five: five is the most frequent use indicator and one is the lowest use indicator. Frequency of strategy use has been classified in the SILL inventory according to the following key:

**Table 2.3: Frequency of Strategy Use (Oxford 1990)**

Very high strategy use	always or almost always used	4.5-5.0
High strategy use	generally used	3.5-4.4
Medium strategy use	sometimes used	2.5-3.4
Low strategy use	generally not used	1.5-2.4
Very low strategy use	never, almost never used	1.0-1.4

Some authors such as Tseng, Dörnyei and Schmitt (2006) have criticized the SILL as fundamentally flawed in design (Macaro 2009), pointing to such problems as the adoption of frequency-of-use scales with highly specific items of a different nature. They claimed that one cannot presume a linear relationship between the individual item scores and the total scale scores as these items are behavioural items (Tseng, Dörnyei and Schmitt 2006, p. 83). In addition, they claimed that the scales in the SILL were not psychometrically justifiable. They argued that it is possible to be adept in one kind of strategy generally even while scoring low on some of the items - one might be a good memory strategy user while being deficient in the use of flash cards, for instance (ibid). Further, they claimed that the SILL was in contradiction with learning strategy theory (ibid.). Macaro (2009) pointed out that debates over strategy size and abstractness contribute to these problems. He identified frequency use of a strategy as another problematic area. When both are an issue, this further compounds the problems (p. 19) (please refer to Section 2.4.1, for more information on strategy size and abstractness).

Despite its potential for inaccuracy, many researchers, Macaro (2009) for instance, still believe that, without any doubt, the best-known general questionnaire is SILL, the Strategy Inventory devised by Rebecca Oxford in the late 1980s (p. 19). The reasons for SILL's popularity are:

- SILL not only provides comprehensive coverage, it has also been submitted to reliability and construct validity measures and performs well (Oxford and Nyikos 1989);
- SILL is one of the few instruments to have been tested for social reliability response data, ensuring that it is free from bias and that students do, in fact, answer the SILL honestly (Oxford 1996b);



- SILL offers a good fit between the six factors originally conceptualized by the author, and the overall data provided by the population of language learners it was tested on (Macaro 2009);
- Oxford's taxonomy of six strategy factors provided the most consistent fit with learners' strategy use (Cohen and Macaro 2007, p. 95; Hsiao and Oxford 2002; Liu 2005; Macaro 2009).
- Many SILL studies allow for comparison (Y. Wu 2007)

Based on the above observations, the current study has adopted SILL to investigate students' perceptions of learning strategy use. We used version 5.1 for the pilot study (see Section 5.3.2) considering it was designed for English speakers learning a new language; and version 7.0 for the main study according to students' feedback on the pilot study (see Section 5.4.2).

## **2.2 Research on L2 Learner Strategies**

Researchers and scholars have observed that the identification and description of learning strategies used by language learners, and the correlation of these strategies with other learner variables such as proficiency level, age, gender, motivation, and the like, is an area of basic research in Second Language Acquisition (Chamot and El-Dinary 1999; Green and Oxford 1995; Oxford and Burry-Stock 1995; Chamot 2004). In the following Sections, strategy use with language learners' cultural background, language learners' language proficiency, as well as language learners' motivation and learning beliefs, are examined, followed by examining the relationship between LLS use and other variables such as gender, age, mother tongues, and length of time studying Chinese.

### ***2.2.1 Strategy Use and Language Learners from Different Cultural Backgrounds***

Culture is among the many factors which might influence a language learner's choice of strategies (Kaylani 1996; Bedell and Oxford 1996; Oxford and Nyikos, 1989), albeit each individual learner has his/her own approaches to learning and

learning strategies.

The word 'culture' has various definitions. For example, Richards and Schmidt (2002) defined it as: "a total set of beliefs, attitudes, customs, behaviour, social habits, etc. of the members of a particular society" (p. 94). Hofstede (1991) however vividly describes "culture" as the "software of the mind" that guides people in their daily interactions. His earlier definition for "culture" is "the collective programming of the mind which distinguishes the members of one human group from another" (Hofstede 1980, p. 25).

Oxford (1996) adopted Brooks' definition (1968). In their view, "culture (relating to patterns of living) refers to the individual's role in the unending kaleidoscope of life situations of every kind and the rules or models for attitudes and conduct in them. By reference to these models, all human beings, from infancy onward, justify the world to themselves as best they can, associate with those around them, and relate to the social order to which they are attached... What is important in culture... is what one is expected to think, believe, say, do, eat, wear, pay, ensure, resent, honor, laugh at, fight for, and worship, in typical life situations..." (Brook 1968, p. 218 – 221)

Yet in second language classes, culture is regarded as a much broader concept inherently tied to many of the linguistic concepts (Peterson and Coltrane 2003). It is "often seen as mere information conveyed by the language, not as a feature of language itself" (Kramsch 1994, p. 8). In language learning, culture "is not an expendable fifth skill, tacked on, so to speak, to the teaching of speaking, listening, reading, and writing. It is always in the background, right from day one, ready to unsettle the good language learners when they expect it least, making evident the limitations of their hard won communicative competence, challenging their ability to make sense of the world around them" (Kramsch 1994, p. 1). Halliday (1990) saw grammar as "a theory of human experience" and text "the linguistic form of social interaction". Studying L2 involves studying L2 culture, and trying to understand another people (Genc and Bada 2005). In Kramsch's words (1994), "language is seen as social practice, culture becomes the very core of language teaching" (p.8).

Culture is regarded as one of the many factors that might influence a language learner's choice of strategies (Bedell and Oxford 1996). Chamot (2004) further argued that the learner's goals, the context of the learning situation, and the cultural values of the learners' society may have a strong influence on selecting language learning strategies. For example, language learners growing up in an educational system that organizes learning around individual competition may opt for strategies that permit them to work alone, rather than social strategies that require collaboration in groups (Chamot 2004, p. 18).

Some SILL studies focused on learning strategy preferences reported by students in different cultural contexts. For example, Wharton's study (2000) revealed that ethnic Chinese, bilingual Singaporean university students who studied French or Japanese as a foreign language, preferred social strategies the most and affective strategies the least.

Mochizuki's study (1999) found that Japanese university students use compensation strategies most frequently, affective strategies least frequently, and memory strategies were not so frequently used as was expected.

Goh et al.'s study (1997) reported that the strategies that Chinese EFL students used most were metacognitive, compensation, and cognitive strategies. The least used strategies were memory, social, and affective strategies. This result contradicted commonly accepted accounts of the learning strategies of Chinese learners, who are thought to be predisposed to using memorization as a main strategy because of Confucian styles of learning (X. Li 2004). Through interviews they found that the students did try hard to memorize new words, although they did not use any of the techniques mentioned in the SILL with regard to the memory strategies (Goh et. al. 1997, p. 47).

L. Shi (2006) argued that there are two contradictory views commonly reflected in the existing literature about Chinese learners: that they are passive, quiet, submissive, or disciplined vs. valuing active thinking, open-mindedness and a spirit of inquiry.

Shi surveyed 400 Chinese middle-school students about learning English in Shanghai, China. Shi's study revealed that contemporary Chinese students placed less emphasis on traditional values and more on the individual, results that differ from those described in earlier studies. She suggested that the influence of Confucianism may be declining. Particularly since the publication of Samuel Huntington's theory of the "*Clash of Civilizations*" (Huntington 1993), many believe that Confucianism traditionally inculcates in Chinese people's values of obedience and conformism that lead to a reliance on rote learning, lack of creativity, and an absence of individualism. Likewise, rote learning and lack of critical thinking skills are believed by some to be favored by Chinese students (X. Li 2004; Gan 2009). L. Shi (2006) argued that, in a context of rapid social change in China, Chinese students show little difference from their western counterparts in being active learners and preferring a more interactive relationship with their teachers. The researcher suggested that relying on past studies to characterize contemporary students in China can lead to errors, even though the earlier studies may have been valid when conducted (L. Shi 2006, p.122). These studies imply that students' learning attitudes and beliefs, as well as their learning strategies, are liable to change under different social circumstances (Gan 2009, p. 43).

Using questionnaires and interviews, Gan (2009) surveyed 339 second year Chinese students studying English in mainland China and 280 second year Hong Kong students studying English in Hong Kong to investigate: (1) whether there are any differences/similarities in learning attitudes, strategies and motivation between these two groups of students; (2) how these differences/similarities could be explained either in terms of cultural traditions, or in terms of situational factors such as institutional contexts and social environments. Gan found that mainland Chinese students used significantly more metacognitive and cognitive learning strategies, in particular memorizing vocabulary, whereas Hong Kong students employed significantly more functional practice strategies, such as watching English TV programs or films. Based on his results, Gan (2009) argued that students' language learning strategies and motivation are more likely to be shaped by the institutional pedagogy and the specific social context than by cultural traditions (p. 53). For

example, memorizing vocabulary was very popular among the mainland Chinese students as vocabulary knowledge was tested in the nationwide English proficiency test. In contrast, contact with English was more widely available to Hong Kong students in a cosmopolitan city like Hong Kong where generally there is easier access to English in language media, greater contact with foreigners, and a higher demand for English as a communication tool in social/educational/economic life (Gan 2009, p.48). Gan also found that both groups reported a very low use of social and affective strategies, and this corresponded to Fan (1999) and Rao's finding (2006). Gan further argued that 'the generalization of Chinese students as rote learners and having a strong preference for group learning as a result of Confucian traditions existent in the literature of language learning strategies have been exaggerated' (p. 49). He maintained that students' learning strategies "tend to be situation-specific rather than determined by cultural attributes" (Gan 2009, p. 49).

As mentioned above, there is a widely held belief that Chinese students have a preference for rote learning (Oxford and Ehrman 1995; X. Li 2004). However, in his survey of the language learning strategies used by a group of Hong Kong University EFL students, using Oxford's SILL, Bremner (1998) found memory strategies were reported as having the second lowest frequency. This finding appears inconsistent with common assumptions about Chinese cultures, in that one would expect persons with a preference for rote learning to make extensive use of memory strategies.

Bedell and Oxford (1996) investigated 353 students studying English at six secondary and tertiary-level institutions in three cities in China. They used SILL version 5.1, the 80-item version to investigate students' use of Language learning strategies. Although version 5.1 is ordinarily used for native English speakers learning foreign languages, they chose it for their study as it provided more data than the shorter version 7.0 for learners of ESL and EFL (p. 55). In addition to SILL, they also used a background questionnaire, in which learners' age, gender, major field of study, years of English study, estimated (self-rated) proficiency, degree and type of motivation and other factors that might influence strategy use were included. Bedell and Oxford overall found the medium use of strategies, with a mean score of 3.19

(please refer to Table 2.3 for the idea of Frequency of Strategy Use). Students reported higher use of compensation strategies than other strategies.

To sum up, culture has been regarded as one of the important factors that affect students' LLS use. On the other hand, others, for example Gan (2009) suggests that students' learning beliefs as well as their learning strategies are liable to change under different social circumstances and students' learning strategies tend to be situation-specific rather than determined by cultural attributes (p. 49). Either view could be correct, depending on the circumstance. Caution should be exercised to avoid stereotypes, as mistaken premises could generate inappropriate teaching and learning strategies. This study carefully examines multiple bodies of evidence for learning differences between CHL and NCHL students, without uncritically accepting common suppositions about heritage Chinese learners.

### ***2.2.2 Strategy Use and Language Learners' Language Proficiency***

The relationship between language learning strategies and the student's proficiency level has been widely investigated (Anderson 2002; Chamot- El-Dinary 1999; Green and Oxford 1995; O'Malley and Chamot 1990; Wharton 2000). Differences between more and less proficient language learners have been found in the number and range of strategies used, in how the strategies are applied to the task, and in the appropriateness of the strategies for the task.

Previous studies show some discrepancies in findings regarding strategies' use. Some studies have found that advanced learners use strategies more often than beginning learners (Oxford and Nyikos 1989; Wharton 2000). These studies also found that learners at different levels use different strategies. The strategies preferred in the beginning stages of learning are not the same as those preferred in advanced stages (Takeuchi 2002). Oxford (1990) pointed out that more advanced learners seem to use better, which is to say, more effective strategies (p. 13).

Mochizuki (1999) investigated language learning strategies used by 44 second year English majors and 113 first year non English majors in Japanese universities. The researcher employed SILL version 5.1, the 80-item strategy inventory, originally designed for English speakers learning a new language, instead of Version 7.0, which was originally for Speakers of Other Languages learning English, as “it is a more thorough survey” (p. 112). The aim was to investigate the kinds of strategies Japanese university students use and the kinds of factors that affect the learner’s choice of strategies. Students took about 30 minutes to complete the questionnaire. Mochizuki (1999) found that the more proficient level students used cognitive and metacognitive strategies more frequently than the less proficient students.

However, Mori (2007a) had different findings. Mori (2007a) surveyed 151 students of Japanese at an American university to investigate to what extent the frequency and the choice of strategy use differs across the varying levels, also using SILL version 5.1, the 80-item instrument. The researcher found the students using SILL medially (frequency level between 2.5 and 3.4) regardless of their level of proficiency. In addition, students’ most frequently used strategy (again regardless of level), was social strategy, and then compensation strategy, followed by cognitive and metacognitive strategies. The least frequently used strategies were memory and affective strategies. Mori’s findings also differed from those of Wharton (2000).

Wharton (2000) examined the self-reported language learning strategy use of 678 university students learning Japanese and French as foreign languages in Singapore, using Oxford’s SILL version 5.1. Wharton investigated the use of each strategy by self-rated proficiency. The results indicated a linear relationship between language proficiency and strategy use: good and fair self-rated proficiency students used SILL strategies in general significantly more often than students who rated their own proficiency as poor (p. 231).

Goh et al. (1997) surveyed 175 Chinese ESL students studying at a university in Singapore, using SILL version 7.0, the 50-item instrument, to investigate the frequency of strategy use and to determine how strategy is influenced by the

learners' proficiency level and gender. Their findings suggested a medium use of learning strategies (please refer to Table 2.3 for the key of frequency of strategy use). Highly proficient Chinese students used cognitive and compensation strategies more frequently than low proficient students. Mochizuki (1999) also had found that more proficient students make greater use of cognitive strategies (see earlier part in this Section). Table 2.4 summarizes the most preferred and least preferred strategies in earlier studies.



**Table 2.4: Overview of Most and Least Preferred Strategies in Earlier Studies**

<b>Researcher</b>	<b>Participants</b>	<b>Most preferred strategies</b>	<b>Least preferred strategies</b>
Bedell and Oxford (1996)	353 students studying English at 6 secondary and tertiary-level institutions in 3 cities in China	Compensation (M=3.6)	Memory
Mochizuki (1999)	44 second year English major students, and 113 first year Non-English major students in a Japan university	Compensation	Affective
Mori (2007a, 2007b)	151 students of Japanese from Japanese courses at an American university	Social strategy Compensation Cognitive	Memory Affective Metacognitive
Goh et al. (1997)	175 Chinese students studying English in Singapore	Metacognitive (M=3.54) Compensation (M=3.46) Cognitive (M=3.27)	Memory (M=2.88) Social (M=3.07) Affective (M=3.16)
Wharton (2000)	678 undergraduates studying Japanese or French at a university in Singapore	Social (M=3.16) Compensation (M=3.14) Metacognitive (M=2.96)	Affective (M=2.67) Memory (M=2.77) Cognitive (M=2.94)
Gan (2009)	339 second year Chinese students studying English in Mainland China, 280 second year Hong Kong students studying English in Hong Kong	Chinese students: Metacognitive Cognitive (Memory in particular) Hong Kong students: Functional practice	Social Affective (for both groups)

### ***2.2.3 Strategy Use and Language Learners' Motivation***

The literature reveals varying theories about language learners' motivation, for example: Gardner and Lambert's (1972) social psychological theories and their integrative/instrumental motivations classification; and Deci and Ryan's (1985) self-determination theory and their intrinsic and extrinsic motivations classification.

The foundations of Gardner's theory were grounded in social psychology and were laid down in the 1960s. Mediating factors between different ethno linguistic communities in multicultural settings in Canada (Dörnyei 2003a), Gardner and Lambert (1972) considered motivation to learn the language of the other community to be a primary force responsible for enhancing or hindering intercultural communication and affiliation (Dörnyei 2003a, p. 5). As a result, they developed their motivational theory in which they defined integrative motivation as "motivation to learn a second language because of positive feelings toward the community that speaks that language" (Gardner 1985, p. 82 – 83). Integrative motivational orientation is a positive desire to interact with the L2 group and become similar to valued members of that community. Instrumental motivation, on the other hand, was referred to a more functional reason such as education or employment opportunities for language learning (Gardner and Lambert 1972).

Another chief motivational theory is Deci and Ryan's (1985) self-determination theory, which has been one of the most influential approaches in motivational psychology (Dörnyei 2003a). Ryan and Deci (2000) defined "Intrinsic Motivation" as "the doing of an activity for its inherent satisfaction rather than for some separable consequence" (p. 56). When intrinsically motivated, a person is moved to act for the fun or challenge entailed rather than because of external products, pressures or reward (ibid). Extrinsic motivation, on the other hand, is a construct that pertains whenever an activity is done in order to attain some separable outcome (ibid). Extrinsic motivation thus contrasts with intrinsic motivation, which refers to doing an activity simply for the enjoyment of the activity itself, rather than its instrumental value (ibid).

Chambers (1999) argued that Gardner and Lambert's pair of integrative motivation and instrumental motivation is well matched with Deci and Ryan's classification of intrinsic and extrinsic motivation. Chambers (1999) maintained that to some degree intrinsic motivation is integrative motivation and extrinsic motivation is instrumental motivation. Deci and Ryan's (1985) self-determination theory has been championed and applied to L2 motivational issues by Kim Noels (Noels 2001; Dörnyei 2003a). The intrinsic and extrinsic motivation has been frequently employed and explored in the L2 field (Dörnyei 2003a). In the current study, we adopted Deci and Ryan's classification and employed the terms of intrinsic and extrinsic motivation when looking at students' motivations in studying Chinese. We define "Intrinsic Motivation" as internalized values deriving from a student him/herself, and that motivate him/her to study the Chinese language (see Section 1.4). We refer "Extrinsic Motivation" to factors external to a student, and that motivate him/her to study the Chinese language (see Section 1.4).

Awareness must be paid with regard to the different categorizations of motivations. In addition to Gardner and Lambert's classification of motivation, i.e. integrative motivation and instrumental motivation, and Deci and Ryan's classification of motivation, i.e. intrinsic and extrinsic motivation, other classifications for this concept may be found in various studies. For example, Han (2003) used a term of 'cultural motivation', whereas Nunn (2005, 2006) categorized "motivation" into: integrative motivations; instrumental motivations; intrinsic motivations; heritage-related motivations, and travel-related motivations (see Section 3.2.3). For the current study, "intrinsic motivation" and "extrinsic motivation" were applied.

Researchers, Oxford and Ehrman (1995), for example, believed that motivation in language learning helps determine the LLS use frequency (p. 363). Motivation will be high only if expectancy of success and value of success are high. It is influenced by students' self-efficacy and attribution of "locus of control", such as fate, society, God, or self (Oxford and Ehrman 1995, p. 363). Motivation was the most significant factor influencing language learner strategies use in a study of 1200 university students (Oxford and Nyikos 1989), and was also strongly related to learning

strategy use among 107 high school students of Japanese (Oxford et al. 1993).

Many studies investigating the effects of motivation have found a relatively strong correlation between motivation and language learning success (Oxford et al. 1993). More highly motivated learners use a significantly greater range of appropriate strategies than do less motivated learners (Oxford 1990, p. 13; Oxford et al. 1993; Mochizuki 1999).

It is commonly agreed that there is a strong correlation between motivation and language learning success (Oxford 1990, p. 13; Oxford et al. 1993; Mochizuki 1999). However, correlation does not equal causation, as a correlational test can tell us whether two things we have measured have a relationship, but the test itself cannot tell us which one causes the other; thus justifiable caution in statistics is necessary (Larson-Hall 2010, p. 149). Therefore caution is required when reasoning for a correlational study, for instance, that motivation is the most significant predictor or factor of achievement. Other factors, such as learning strategies, learning environment and teaching resources, may also contribute to learning success. On the other hand, learning success can enhance motivations.

Mochizuki (1999) (see also the above Section for the brief introduction of this study) found that motivation affected the learner's choice of strategies in all of the six categories (p. 108). Highly motivated students used learning strategies more frequently than less motivated students, which corresponded with Oxford and Nyikos' finding in 1989. Mochizuki's study (1999) also suggested that motivation affected the learner's choice of strategies the most strongly of all the factors. This, in turn, brought about significant differences in all six strategies (p. 107).

Fan (1999) employed and adapted Wen's instruments to investigate 529 Hong Kong English language students' motivation, belief and learner strategy. She found that, although both intrinsic and extrinsic motivation correlated positively and significantly with the English results, the association between extrinsic reasons and the students' self-reported proficiency appeared to be stronger, and the students

considered extrinsic reasons for learning English much more important. Fan (1999) suggested that because Hong Kong had been a British colony for 155 years, English was important with respect to careers and study. Students therefore considered English important for future career success, for obtaining information, for their study in Hong Kong and abroad, as well as for entertainment. Fan (1999) observed that these findings confirmed those of several previous studies (p. 75).

As mentioned in Section 2.2.1, Gan (2009) surveyed 619 second year Business and Engineering students studying English in mainland China (339) and in Hong Kong (280) to compare these two groups students' learning attitudes, strategies and motivation through questionnaire and interviews. In terms of motivation, Gan (ibid.) found a high level of Achievement Motivation, for instance: I want to speak English like a native speaker, and extrinsic motivation, for example: a good command of English will improve my chance of finding a good job, among both Mainland and Hong Kong Chinese students. Gan argued that institutional contexts and social environments rather than cultural traditions tend to determine students' attitudes towards motivation for learning English.

#### ***2.2.4 Strategy Use and Language Learners' Language Learning Beliefs***

Horwitz is a pioneer in research regarding language learning beliefs (Tanaka and Ellis 2003; Nikitina and Furuoka 2006). Horwitz (1987, 1999) was the first to systematically identify learners' beliefs about language learning. By using free-recall activities and group discussions with both foreign language and ESL learners and teachers, she identified common beliefs about language learning. Based on these results, she developed BALLI: the Beliefs about Language Learning Inventory (please refer to the next Section for further information on BALLI). She maintained that cultural background and previous experience played an important role in learners' beliefs about language learning, particularly for ESL learners. She pointed out that unrealistic beliefs might be a cause for poor language learning and performance (ibid). Horwitz's study (1987) also revealed that most students believed that learning a second or foreign language was difficult but underestimated the time needed for mastering a language.

## **Research Methods on L2 Language Learning Beliefs**

Barcelos (2000, 2003) distinguishes three main approaches on L2 language learning belief research. These are: the normative approach, the metacognitive approach, and the contextual approach.

The normative approach is characterized by the use of Likert-scale questionnaires in the investigation of learner beliefs about SLA. It was used for studies on culture, which tend to treat students' culture as an explanation for their behaviours in class (Barcelos 2003, p.11). Horwitz's Beliefs about Language Learning Inventory (BALLI) (1988) is the most widely used questionnaire to investigate beliefs (Barcelos 2003; Bernat and Gvozdenko 2005). Most research studies either employ the BALLI as an instrument, or adapt and modify it (Barcelos, 2003; Bernat and Gvozdenko 2005; Nikitina and Furuoka 2006). Apart from the BALLI, researchers, such as Cotterall (1995), have developed their own questionnaires (Barcelos 2003; Bernat and Gvozdenko 2005). The metacognitive approach uses verbal accounts gathering information through semi-structured interviews and self-reports. The contextual approach, however, combines different methods to interpret students' beliefs in their contexts, and employs a variety of methods including ethnographic classroom observations, diaries and narratives, metaphor analysis, and discourse analysis (Barcelos 2000, 2003). Barcelos summarized some studies conducted using these approaches:

**Table 2.5: Summary of Selected Studies Using Different Approaches to Investigate LLB (Adapted from Barcelos, 2003)**

<b>APP</b>	<b>Studies</b>	<b>Purpose</b>	<b>Methodology</b>
NOR	Horwitz 1985	To describe an instrument for eliciting student beliefs about language learning and teaching (BALLI).	Inventories: FLAS (Foreign language Survey) BALLI
	Horwitz 1987	To report on the responses of one group of ESL student to the BALLI.	BALLI (ESL version)
	Campbell et. al. 1993	To describe beliefs about language learning of university students.	BLL (Beliefs about Language Learning) Questionnaire
	Mantle- Bromley 1995	To investigate students' attitudes towards language and culture.	Modified BALLI; Class observation
	Kuntz 1996	To examine language learning beliefs held by students of French and Spanish, and compare them to beliefs of students of Swahili.	Kuntz-Rifkin Instrument (KRI)
MET	Wenden 1986	To investigate and classify learners' knowledge about their language learning.	Semi-structured interviews
	Wenden 1987	To report on learners' prescriptive beliefs and to understand the relationship between their beliefs and strategies.	Semi-structured interviews
CON	Barcelos 1995	To understand students' beliefs through the characterization of their culture of learning languages.	Participant observation; Semi-structured interviews; Open-ended questionnaires
	Allen 1996	To understand the influence of teachers' beliefs on learners' language learning beliefs.	Classroom observation; Document analysis; Teacher and student interview; Learner diary
	Barcelos 2000	To investigate the relationship between teachers' and students' language learning beliefs	Participant observation; Ethnographic interview; Stimulated recall
	Grigoletto 2000	To investigate the representations about the language of Brazilian students of English in public schools.	50 written reports; Semi-structured interviews with 8 students.

*Note: APR=Approaches; NOR=Normative; MET=Metacognitive; CON=Contextual*

Language learning beliefs research has therefore developed a diversity of theoretical frameworks, which creates a rich tapestry of complementary studies (Bernat and Gvozdenko 2005). However, none are without limitations (Bernat and Gvozdenko 2005, p. 7). Barcelos has summarized the advantages and disadvantages of the three approaches:

**Table 2.6: Advantages and Disadvantages of the Approaches to Investigate LLB (Adapted from Barcelos 2003, p. 26 – 27)**

	<b>Normative</b>	<b>Metacognitive</b>	<b>Contextual</b>
Advantages	Allows investigating beliefs with large samples, at different time slots, and at outside contexts.	Students use their own words elaborate, and reflect upon their language learning experiences.	Beliefs are investigated taking into account students' own words and the context of students' actions.
Disadvantages	Restricts respondents' choices with a set of statements predetermined by the researcher. Students may have different interpretations about those statements.	Beliefs are inferred only from students' statements.	More suitable with small samples only. It is time-consuming.

During the past two decades, Horwitz's BALLI – the Beliefs about Language Learning Inventory, has been widely used by many researchers to assess learners' beliefs (Nikitina and Furuoka 2006). Horwitz (1987) developed BALLI to assess student opinions on a variety of issues and controversies related to language learning. There are three versions of BALLI: 1) BALLI to measure the beliefs of the students of English as a Second Language (ESL BALLI); 2) BALLI to explore beliefs held by foreign language teachers (teachers BALLI); and 3) BALLI to assess beliefs of students learning foreign languages (foreign language BALLI) (Nikitina and Furuoka 2006). All the versions of BALLI employed a 5-point Likert-type scale ranging from “strongly disagree” to “strongly agree”. The first BALLI consisting of 27 statements is used to assess beliefs of immigrants learning English as a second language; the second also consisting of 27 items focuses on the beliefs held by



teachers of foreign languages; the third BALLI, a 34-item Likert-scale inventory, is used to assess student opinions on issues relating to their foreign language learning (Nikitina and Furuoka 2006).

Despite its being widely used in researching learners' language study beliefs, BALLI has been subject to criticism regarding the validity of the instrument, especially the transfer of its themes into foreign language aptitude, the difficulty of language learning, the nature of language learning, learning and communication strategies, and motivation and expectations (Nikitina and Furuoka 2006, p. 209). In order to determine whether Horwitz' instrument could be justified, Nikitina and Furuoka (2006) employed Horwitz's BALLI to investigate language learning beliefs held by 107 Russian language students in the Malaysian context. By using inferential statistical analysis and factor analysis, they found that BALLI is a suitable tool for research on language learning beliefs. Other researchers, such as Barcelos (2003), and Bernat and Gvozdenko (2005), also reported that BALLI can be used in various socio-linguistic settings regardless of the language being learned.

According to Barcelos' classification (2000, 2003), the approach used in the current study belongs to the Normative Approach, which adopted Horwitz's (1987) third version of Likert-scale questionnaire – BALLI to investigate students' language learning beliefs. This version of BALLI, i.e. the 34-item BALLI to assess student opinions on issues relating to their foreign language learning, includes five categories:

- Foreign Language Aptitude (Item QB<sup>12</sup>1, 2, 6, 10, 11, 16, 19, 30, 33), which concerns the general existence of specialized abilities for language learning, for example: *'Everyone can learn to speak a foreign language.'*
- The Difficulty of Language Learning (Item QB3, 4, 5, 15, 25, 34), which concerns the difficulty of learning English as a second or foreign language.
- The Nature of Language Learning (Item QB8, 12, 17, 23, 27, 28), which includes a broad range of issues related to the characteristics of language

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<sup>12</sup> Note: QB stands for Question items in Part B, LLB, in the Questionnaires.

learning.

- Learning and Communication Strategies (Item QB7, 9, 13, 14, 18, 21, 22, 26), concerning the process of learning a language and the practice of spontaneous communication in the classroom.
- Motivations and Expectation (Item QB20, 24, 29, 31, 32), concerning desires the students currently maintain in association with the learning of English. (Horwitz, 1987)

### **Strategy Use and Language Learners' Language Learning Beliefs**

Some researchers, Fan (1999), for example, reported on two of the factors that contribute to success in learning L2: the learner's opinion of what is important to success in learning L2, and the strategies they actually employ (p. 65). Some provided evidence that student beliefs about language learning can influence their language learning strategies, and student's learning strategies were consistent with their LLB (Horwitz 1987). In this part, we focus on three scholarly works to look at the issue of learners' strategy use and their language learning beliefs. These works are 1) Fan's study (1999): *An Investigation into the Beliefs and Strategies of Hong Kong Students in the Learning of English*; 2) N. D. Yang's study (1999): *The Relationship between EFL Learners' Beliefs and Learning Strategy Use*; and 3) Hong's study (2006): *Beliefs about Language Learning and Language Learning Strategies Use in an EFL Context: a Comparison Study of Monolingual Korean and Bilingual Korean Chinese University Students*.

#### **Fan's Study (1999)**

As reported earlier (Section 2.2.3), Fan (1999) employed and adapted Wen's instruments (1993) and investigated 529 Hong Kong English students' motivation and their learning strategies. In addition to this issue, Fan (1999) also investigated Hong Kong English students' language learning beliefs and learning strategies, intending to find out if there is any relationship between the two factors and whether they are related to language proficiency. Her results revealed a positive and significant relationship between all categories of language learning beliefs and strategies (Fan 1999, p.76). In addition, she also identified students' language

learning beliefs and strategies were related to their self-reported high English proficiency (Fan 1999, p.65).

### **N. D. Yang's Study (1999)**

N. D. Yang (1999) investigated the relationship between college EFL students' beliefs about language learning and their use of learning strategies. By using Horwitz's BALLI and Oxford's SILL instruments [no indication with regard to which version the researcher employed], she surveyed 505 university students who had studied English formally for six years in junior and senior high schools and for at least one more year as university freshmen in Taiwan. Yang found that language learners' self-efficacy beliefs about learning English – for example: “I believe that I will learn to speak English very well” – were strongly related to their use of all types of learning strategies. In addition, learners' beliefs about the values and nature of learning spoken English were closely linked to their use of formal oral practice strategies, for example: “I pay attention when someone is speaking English,” or “I try to talk like native English speakers” (p. 515). However, Yang also observed that students in her study held some conflicting beliefs that were reflected in their use of strategies. For example, she reported 92% of students rejected the statement that “you shouldn't say anything in English until you can say it correctly”; while at the same time over 80% students agreed that, if beginning students were allowed to make errors in English without correction, it would be difficult for them to speak correctly later on (p. 530). In addition, Yang observed cyclical relationships among learner's beliefs, motivation and strategy use. She pointed out that the canonical correlation indicates a relationship between two sets of variables, but it does not reveal whether the relationship is causative (p. 531).

### **Hong's Study (2006)**

By using the 34-item BALLI and the 50-item SILL, Hong (2006) surveyed 428 monolingual Korean (in Korea) and 420 bilingual Korean-Chinese (in China) university students' beliefs about language learning and Language Learning strategies use in EFL contexts. The results revealed that students from both groups reported low use of social and memory strategies, and bilingual students reported

higher use of learning strategies. More specifically, the monolingual Korean students used compensation strategies most, followed by cognitive, metacognitive, memory, social, and affective strategies, whereas bilinguals preferred to use cognitive strategies most, followed by metacognitive and affective, compensation, memory, social, and independent practice strategies. In addition, Hong reported that monolingual Korean students' beliefs about motivation and the nature of learning English are closely related to metacognitive, memory, and compensation strategies. Korean-Chinese students' beliefs had significant correlation with all six strategy areas which were based on Oxford's classification of strategies types. She suggested that this finding was similar to that of N. D. Yang's (1999). Hong maintained that learners' beliefs may influence their use of strategies and vice versa, and therefore a reciprocal correlation between learner's beliefs and strategy use might exist (Hong 2006, p. 185). In addition, students' self-rated English proficiency levels were positively correlated with strategy use for both groups.

### ***2.2.5 Strategy Use and Gender, Age, and Mother Tongue***

#### **Strategy Use and Gender**

The literature suggested discrepancy findings on the relationship between strategy use and gender. Oxford and Nyikos (1989) found female students used more strategies, especially social strategies. Peacock and Ho (2003) also found that female students used significantly higher use of all six strategy categories than did male students. Peacock and Ho (2003) argued that female students may give L2 study a slightly higher priority than did male students, and hence made the difference (p. 194).

Other studies however found that there were no significant differences in the use of LLS for male and female students (Hong 2006; Jiang 2000; Shmais 2003; Wharton 2000). In his study of Singapore bilingual foreign language learners' LLS use, Wharton (2000) investigated the use of each strategy by gender using Chi-square, in addition to examining the use of strategy by proficiency (please refer to Section 2.2.2). He found that 23 out of 80 LLS use items demonstrated statistically

significant differences in their self-reported LLS use by male and female students, with 13 items used significantly by male students and 10 items used significantly by female students. He commented that the finding of an absence of gender differences overall was unexpected (p. 233). However, Wharton did not explain this result convincingly. Instead, he made some far-fetched and contradicting explanations. He argued that compared to previous studies, the lack of humanities majors may be the reason that caused the confounding findings in his study (p. 234), he suspected that “previous language learning experience or bilingualism may be more important than ethnicity, and possibly also gender, as a factor that significantly affects learning strategy use” (p. 234). He concluded that a combination of socialization and physiology may probably be the reason that caused gender-related differences (p. 235).

Shmais (2003), however, proposed that the inconsistent results may be due to the students’ foreign language levels. In her study, the participants (EFL learners) were all university students. She assumed that the students were more aware of the process of learning English as a foreign language and of the strategies they employed to achieve their goal. Shmais’ study also revealed that proficiency made no significant differences on LLS use, to which she proposed the same reason as the above.

### **Strategy Use and Age**

Peacock and Ho (2003) compared and contrasted strategy use across eight disciplines and also examined the relationships among strategy use, L2 proficiency, age, and gender, by using the 50-item version of SILL among 1006 students studying at a Hong Kong university. Their study revealed that mature students, aged 23 or above (12% of their sample) reported a significantly higher use of four of Oxford’s six strategy categories: memory, metacognitive, affective, and social than did younger students. They argued that older students may be better at seeing connections, relationships and patterns in English, at thinking about their progress, and were less afraid of making mistakes than younger students (p. 194).

Y. Wu (2007) investigated the relationship between learners' age and their LLS use. He found that despite there were no significant differences in the use of memory strategies, cognitive strategies, metacognitive strategies, and social strategies among different age groups, there were differences and tendencies in the average use of LLS. Y. Wu (ibid) reported that there was a tendency that the older the learners were, the fewer the use of compensation and affective strategies, below 25 years old students group used these two types of strategies more frequently than over 46 years old students group. Y. Wu argued that this could be explained as: the younger the students were, the less stable their mood could be, therefore younger students need to use affective strategies to control their emotions such as anxious, and to encourage them to study, whereas the older students' mood was relatively stable, the reasons for them to study language were not for living, job, or career, so they do not have to use affective strategies to control their emotions (p. 44).

### **Strategy Use and Mother Tongue**

With regard to the mother tongue, Y. Wu (2007) found there was no significant difference in using memory, cognitive, and metacognitive strategies between Korean, Japanese and Indonesia speaking students and the English, Italian, French, Spanish and Russian speaking students. However, the Korean, Japanese and Indonesia speaking students used significantly more affective strategies than the English, Italian, French, Spanish and Russian speaking students, and the English, Italian, French, Spanish and Russian speaking students used significantly more compensation and social strategies. His finding was consistent with Jiang's results.

In her study, Jiang (2000) divided students into two mother tongue groups: European language group including students whose mother tongue was English, Italian, German or French; Asian language group including students whose mother tongue was Japanese, Korean, Indonesian, or Thai. The most frequently used strategies for European language group students were social ( $M = 3.69$ ), metacognitive ( $M = 3.45$ ) strategies, followed by cognitive ( $M = 3.38$ ) and compensation ( $M = 3.35$ ) strategies; the least used strategies were memory ( $M = 2.80$ ) and affective ( $M = 2.53$ ) strategies. On the other hand, the most frequently used strategies for Asian language group

students such as Japanese, Korean, Thai, and Indonesian, were compensation ( $M = 3.52$ ) and metacognitive ( $M = 3.50$ ) strategies, followed by social ( $M = 3.44$ ) and cognitive ( $M = 3.30$ ) strategies; their least used strategies were affective ( $M = 3.03$ ) and memory ( $M = 2.75$ ) strategies. In addition, she found that there were significant differences in the use of affective strategies among different mother tongue groups ( $p < .001$ ). Asian language group students, whose mother tongue was Japanese, Korean, Indonesian, or Thai, used affective strategies significantly more often than European language group. However, there were no significant differences in the use of other strategies among these two mother tongue groups. Jiang's explanation for this was that it had to do with students' personality, by which she meant culturally influenced personality: students from Japan, Korea, Thailand, and India are thought to be introverted, lack confidence, and to be especially sensitive to their emotions. She inferred from this that this group of students would need to use affective strategies, such as encouragement, to boost their self-confidence. She accepted the widespread belief that students from France, Germany, and UK tend to be extroverted, and so inferred that they prefer social activities, and therefore will utilize social strategies more often in their study of Chinese.

To sum up, in this Section 2.2, we looked at research on L2 learner strategies, including strategy use and language learners from different cultural backgrounds, strategy use and language learners' language proficiency, strategy use and language learners' motivation, and strategy use and language learners' language learning beliefs. In addition, we also looked at strategy use and gender, age and mother tongue. Previous literature and studies showed us vivid pictures about the LLS use with these variables; however, the results were found to some degree discrepant from one study to another.

Take students from Singapore and Japan as an example. Some people have claimed that ethnic Chinese, bilingual Singaporean university students preferred social strategies the most and affective strategies the least (Wharton 2000); some found that Japanese university students use compensation strategies most frequently, and affective strategies least frequently (Mochizuki 1999); some reported that the strategies that Chinese EFL students' used most were metacognitive, compensation,

and cognitive strategies, whereas the least used strategies were memory, social, and affective strategies (Goh et al.1997); some stressed that motivation was the most significant factor influencing language learner strategies use (Oxford et al. 1993); some stated that a positive and significant relationship between all categories of language learning beliefs and strategies (Fan 1999); some reported that monolingual Korean students' beliefs about motivation and the nature of learning English are closely related to metacognitive, memory, and compensation strategies, whereas Korean-Chinese bilingual students' beliefs had significant correlation with all six strategy areas based on Oxford's classification of strategies types (Hong 2006)...and so on and the so forth.

Nevertheless one should not be surprised by the diverse results from literature, as the settings were different, e.g., Fan's study was carried out in Hong Kong; Hong's in Korea and China; the timing was different, e.g., Fan's in 1999 and Hong's in 2006; and the environments and situations that the studies carried out were different, and most importantly, the participants were different. Gan (2009) argued that students' learning attitudes and beliefs, as well as their learning strategies are liable to change under different social circumstances (p. 43). Even with the same type of participants, different results may nonetheless occur, as other issues may arise which might affect the results, such as sample size, survey lengths, and analytic methods. If the sample is too large and if the survey is too long, then accuracy of results may not be easy to achieve, let alone if the analytic method is not appropriate. Consequently, cause-effect statements about correlational research, such as those of Fan's (1999, sample number was 529) and Wharton's (2000, sample number was 678), might not be sufficiently justifiable. So there are many issues and agendas for LLS researchers, for instance how to elicit results that can represent and reflect the real world as accurate as possible. One urgent issue is to refine methodology to improve results. While at present, questionnaires are one of the popular methods to draw findings from learners' LLS use, it is hoped that questionnaire design can be refined to improve rigors.



### **2.3 Research on LLS in Studying Chinese as a Foreign/Second Language**

As stated earlier at Section 1.2, Chinese as a Foreign/Second Language (CFL/CSL) is a new discipline with only 20 years of history (Y. Wu 2004a, 2004b; J. W. Shi 2006). Research in this area has not only been limited, but to some degree unbalanced. Consequently, research on affective factors such as Individual Differences and Learner Strategies have been investigated meagerly (Cui 2005; Liu 2000; Liu and Jiang 2003; J. W. Shi 2006; Xu 2004; Zhang 2000; Zhao 2000, 2001). Researchers, for example, Y. Wu (2004a, 2004b) and J. W. Shi (2006) argued that research in Chinese Language Learning strategies is very important, yet had received very little attention. Grainger (2005) also noted that much of LLS research has focused on English as a Second/Foreign language and that there had been very little focus on the role of learning strategies in the learning of Category Four<sup>13</sup> languages, such as Chinese, Japanese, Korean and Arabic (p. 327).

Zhao (2001) and other scholars, such as J. W. Shi (2006), proposed many research areas that should be investigated in Chinese Language Acquisition. These areas include: research on Chinese language learning strategies among foreign students from different cultural backgrounds; the relationship between the strategy use by students from different countries and their Chinese study efficiency.

In this Section, we first look at research methods on LLS in studying Chinese as a Foreign/Second Language, we then look at seven scholars' works on LLS in studying Chinese as a Foreign/Second Language (we will look at LLS in studying Chinese as a Heritage Language in Chapter Three).

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<sup>13</sup> Note: According to Grainger (2005), a Category Four language is a term used by the Foreign Service Institute and the Defence Language Institute, which classifies languages according to the length of time taken to attain varying levels of proficiency. Category Four languages are typically languages using non-Western orthographies, including Chinese, Japanese, Korean and Arabic etc. Grainger avers that learning these languages takes three times as many hours to reach the same proficiency as a Category One language such as French or Spanish.

### ***2.3.1 Research Methods on LLS in Studying Chinese as a Foreign/Second Language***

Research on language learner strategies in studying Chinese as a Second Language started with an empirical study by Yang in 1998: “The relationship between learning strategy and learning efficiency among advanced CFL learners” (Jiang 2000; J. W. Shi 2006). According to Wang (2003), statistical methods have been applied in all areas of teaching and learning Chinese as a Foreign/Second Language research, although it varies from one area to another. In the area of Chinese language learner strategies, the most used research methods are: interview, observation, questionnaire, and experiment, as we can see from the following Table:

**Table 2.7: Research Methods Used by Chinese Scholars in CFL/CSL**

<b>Researcher</b>	<b>Topic area</b>	<b>Research Method</b>
Guo (2006)	Minority Group	Documentary review
Hu (2008)	Minority Group	Questionnaire; Interview
Huang (2006)	Listening	Documentary review
Jiang (2000)	General Areas	Questionnaire – SILL
Jiang and Zhao (2001)	Character Learning	Questionnaire – SILL
Lin and Lu (2005)	General Areas	Questionnaire – SILL
Liu and Jiang (2003)	Character Learning	Experiment
Lu (2005)	Speaking/writing	Experiment; Questionnaire
Lu and Lin (2007)	General Areas	Questionnaire – SILL
Luo (1999)	General Areas	Documentary review
Qian (2006)	Reading	Questionnaire
Qiang (2005)	Vocabulary	Experiment; Questionnaire
Tao (2002)	General Areas	Case study; Questionnaire – SILL
Y. Wu (2007)	General Areas	Questionnaire – SILL
Xu (1999)	General Areas	Interview; Language and behavior recording; Questionnaire
Xu (2003)	General Areas	Observation; Interview; Teaching notes; Self-report; Questionnaire
Xu (2006)	General Areas	Case study
Yan (2004)	Minority Group	Questionnaire
Yan (2007)	Vocabulary	Questionnaire
Yang (1998)	General Areas	Questionnaire
Zhou (2004)	Listening	Test; Questionnaire
Zhou and Wei (2004)	Character Learning	Documentary review
Zhu and Ha (1999)	Character learning	Teaching experience

From the Table above it is evident that using questionnaires has been the chief method employed by a majority of Chinese scholars in the CFL/CSL discipline. Further examination reveals that most studies which investigated students' learning strategies in studying Chinese either employed or adapted Oxford's SILL as a questionnaire instrument (Jiang 2000; Tao 2002; Y. Wu 2007; Lin and Lu 2005; Lu and Lin 2007). However, there remains some controversy with regard to whether SILL is suitable for investigating LLS in studying Chinese.

Some researchers, for example, Jiang (2000), surveyed 107 foreign students studying Chinese at Beijing Language and Culture University to investigate the students' learning strategies use in studying Chinese, and SILL's reliability and validity. The results showed that SILL is suitable for investigating foreign students' LLS in studying Chinese (p. 65). Jiang reported that SILL, as an instrument to examine learning strategies' use in studying Chinese by students of different nationalities, has good reliability and validity and so SILL is suitable for examining foreign students' learning strategies in studying Chinese.

Another researcher, Grainger (2005), also examined whether SILL is suitable for use with languages using non-Western orthographies, such as Chinese or Japanese. He investigated 23 undergraduate university students studying Japanese (4 males, 9 females, aged from 16 to 28, with mixed proficiency level). He employed SILL version 5.1, the 80-item instrument, to test the relevance of the instrument particularly with regard to literacy related items, for English speakers studying one of the Category Four languages, i.e. Japanese. He argued that the SILL might not be suitable for use with languages using non-Western orthographies, such as Chinese or Japanese. He maintained that, given the shortage of studies testing the viability of using SILL with Category Four languages (see footnote 14 in Section 2.3), it may not be valid to use these instruments for measuring strategy use in languages using non-Western orthographies (Grainger 2005, p. 327). However, he acknowledged the limitations of his study: small cohort of students, gender imbalance, and the large number of beginning students etc. As a result he suggested that the findings should be replicated in much larger, gender-balanced studies involving students at varying proficiency levels, and should include some qualitative data from respondents in retrospective interviews to clarify the quantitative results (Grainger 2005, p. 338).

Despite this controversy, many scholars in the discipline of SLA in Chinese as a Foreign/Second Language employ or adapt SILL to investigate LLS in studying Chinese (see earlier part of this Section), as it can describe how learners use their strategies comprehensively (Y. Wu 2007) and it has advantages that other similar type of instruments do not possess (see Section 2.1.3). The current study also

employed SILL to examine the related issues, so the findings could be compared with those of other studies. At the same time, we hope that a more suitable instrument for examining learners' learning strategies in studying Chinese will be developed.

### ***2.3.2 Research on LLS in Studying Chinese as a Foreign/Second Language***

As we can see from the above Section, research on LLS in Studying Chinese as a Foreign/Second Language covers listening, speaking/writing, reading, vocabulary learning, character learning, minority groups, and learning strategies in general. As the current study is a general LLS study, this Section reviews the literature on foreign language students', i.e., non-heritage Chinese students', general learning strategies in studying Chinese as a Foreign/Second Language (studies of heritage Chinese students are in the next Chapter).

#### **Y. Yang's Study (1998)**

Y. Yang (1998) was one of the first scholars to investigate language learner strategies in studying Chinese as a L2, and she was the first to use quantitative methods in the form of questionnaire, to investigate this issue (Jiang 2000; Jiang and Zhao 2001; Y. Wu 2004a, 2004b). Yang designed a "Chinese Learning Strategy Instrument" to investigate the relationship between advanced Chinese learners' learning strategies use and their Chinese proficiency. Eighteen students from Japan, Korea, Vietnam, Ecuador, and Germany answered the questionnaires. Yang's questionnaire was designed based on Bialystok's (1978) language learning model. She divided learning strategies into four parts: functional strategies, e.g. watching Chinese TV programs or listening to Chinese radio broadcasts; formal strategies, such as reciting texts or memorizing sentence structure; mother-tongue strategies, for example translating Chinese into mother-tongue to help understanding; and self-management strategies, for instance revising regularly or taking notes in class. She used advanced HSK<sup>14</sup>,

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<sup>14</sup> Hanyu Shuiping Kaoshi (HSK), also known as Test of Chinese as a Foreign Language (TOCFL), or the Chinese Proficiency Test, is the People's Republic of China's only standardized test, similar in nature to TOEFL. It is designed and developed by the HSK Center of Beijing Language and Culture

the Hanyu Shuiping Kaoshi Standard Mandarin Chinese proficiency for non-native speakers, as a tool to decide students' Chinese language proficiency level. Her results indicated that functional, formal and self-management strategies generally were helpful in improving study efficiency. Moreover, the frequency of these strategies' use was positively related to the proficiency level. However, mother-tongue strategies, when used at an advanced level, were not effective for improving study efficiency. The frequency of this type of strategies' use is negatively related to proficiency level. This study, however, worked with very small populations, and there was no significance test, so the results need further verification (Jiang 2000).

### **Xu's Study (2000)**

Xu (2000) investigated 60 foreign students' learning strategies in studying Chinese through interview, language and behavior recording, as well as questionnaires. The students, who studied Chinese at the Department of Chinese as a Second Language at East Normal University, came from different countries such as Korea, Japan, Mongolia, Australia, France, America, Canada, Britain, Luxembourg, Brazil, and the Philippines, with different gender, age, profession, and proficiency level. Xu designed the questionnaire to test three variables: in-class group study and after-class individual study; authentic and simulated learning environment; the use of the mother tongue, and using a target language. Xu analyzed the results by using statistical and cognitive psychology methods. She argued that effective memory strategies, such as revision, pre-study, and reciting, were among the most commonly used strategies. This contradicts Jiang's finding (2000). Jiang's results suggested that memory strategy was the least used strategy. In addition, Xu proposed that making use of the mother tongue was a major strategy that foreign students use when studying Chinese. Through interviews and teaching, she found that the mother tongue's use varied at different levels. At the beginning level, this strategy was used quite frequently. Later, at a higher level, the use of the mother tongue came to be the least important. Employing cognitive psychology theory to analyze strategy uses was unique in strategy studies.

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University to assess the Chinese language proficiency of non-native speakers including foreigners, overseas Chinese and students from Chinese national minorities. It was first to be held in 1990 with the approval of the State Education Commission.

In another study, Xu (2003) compared learning strategies used by Chinese students studying English and foreign language students studying Chinese. By surveying 66 foreign students (mainly from western countries) studying Chinese at East Normal University, Xu investigated the relationship between the foreign students' learning strategies in studying Chinese and their Chinese proficiency through observation, interview, teaching notes, self-report, and questionnaire. Xu used the textbook that students were using to decide their proficiency level. She reported that the two groups of students adopted different strategies in their lexical acquisition, skills development, and memorization. However, there was no indication as to how the questionnaire was designed.

### **Jiang's Study (2000)**

We have mentioned Jiang's study (2000) earlier in Section 2.2.5.3. In her study, Jiang surveyed (2000) 107 foreign students studying Chinese at Beijing Language and Culture University, and examined SILL's reliability and validity, and whether SILL was suitable for research in LLS in studying Chinese as a Foreign/Second Language. Jiang divided the students into two groups: a group with students who spoke languages such as English, Italian, German or French; and a group with students who spoke languages such as Japanese, Korean, or Thai. Jiang investigated the students' learning strategies use in studying Chinese, and the relationship between their Chinese language strategy use and: 1) LLS use in general, 2) gender; 3) mother tongue; 4) the length of time studying Chinese; and 5) their Chinese proficiency. She employed and adapted Oxford's SILL, version 5.1, to investigate the issues, as she considered its strategy classification the most comprehensive (p. 62).

The results indicated that the most frequently used strategies by European language students were social ( $M = 3.69$ ), metacognitive ( $M = 3.45$ ), and cognitive strategy (3.38), followed by compensation ( $M = 3.35$ ) strategies. The least used strategies were affective ( $M = 2.53$ ) and memory ( $M = 2.80$ ) strategies. Jiang argued that these results may be due to the study environment and the students' characteristics. As

these were foreign students studying Chinese in China, both the formal class study and informal after-class study were important to them. Social strategies would therefore become natural for them. They would need to converse with Chinese people in Chinese much of the time, asking questions to satisfy real life needs. Jiang claimed that the study environment was very important as it affected learning strategies' use and students' study efficiency. Jiang explained that the student's frequent use of metacognitive strategies was due to the fact the students were adult learners. Compared to minors, adult learners have a clearer goal, better self-monitoring and self-assessment, and therefore they can plan well, seek opportunities to practice, and learn from mistakes. However, noticing that results from other studies outside of China reveal that students do not use metacognitive strategies as frequently as in her study, Jiang proposed that this was due to the fact that, except for one student, all others had the experience of learning other languages, which helped them to manage and coordinate their study. Jiang argued that it was natural for students to use compensation strategies, as their Chinese was not at proficiency level. They needed to use these strategies in order to compensate for inadequacies.

In addition, Jiang observed that the strategies use is significantly related to the proficiency level. The more the students use cognitive, compensation, metacognitive, and social strategies, the higher was the students' Chinese proficiency level as assessed by the teachers. Jiang also reported no significant relationship between memory and affective strategies, and Chinese proficiency level. She concluded that the proficiency level of the target language affects the selection and use of cognitive strategies. However, she did not suggest that the strategies' use affected the proficiency level.

### **Tao's Study (2002)**

Tao's study (2002) is an M.A. thesis. It has been reviewed here because its findings are such as to be worthy of attention. Tao investigated learning strategies use by 31 foreign students studying Chinese at Chongqing University. The research methods Tao used were questionnaires adapted from SILL, and interviews. In addition, Tao investigated 20 teachers' views on the students' use of strategies in studying Chinese.



Tao's results indicated that the most frequently used strategies were social ( $M = 3.96$ ) and compensation ( $M = 3.61$ ) strategies, followed by affective ( $M = 3.26$ ) and memory ( $M = 3.18$ ) strategies; the least used strategies were metacognitive ( $M = 3.12$ ) and cognitive ( $M = 2.94$ ) strategies. Tao's findings were inconsistent with Jiang's study (2000). Tao explained that the reason foreign students used social strategies the most and cognitive strategies the least was due to the fact that: 1) they were living in a different country where they had to learn how to communicate in order to survive; and 2) their motivation in studying Chinese was basically to learn more about China and Chinese culture and to know something about communicating with Chinese people so that in the future they could conduct business more effectively. Tao also found that the students' Chinese proficiency level influenced their choice of learning strategies. In addition, Tao observed that teachers thought that students used social and cognitive strategies most frequently, followed by affective and compensation strategies. They also believed that students use memory and metacognitive strategies the least. Tao's findings suggest that there may be a difference between the teachers' and students' perceptions as regards students' use of strategies. This should caution us to be more aware of student attitudes in our teaching.

#### **Li's Study (2004)**

L. Li (2004) used interviews and questionnaires, designed according to Yang (1998) and O'Malley and Chamot (1990), to investigate Chinese Language Learning strategies use by 30 foreign students studying Chinese at Jinan University. Li divided them into two groups: a high-grade group and a low-grade group. She found that students at different stages used strategies similarly in pattern drilling strategy, for example memorizing sentence patterns; mother tongue strategy, such as using mother-tongue when reading; management strategy, for instance regular revision; and accuracy strategies, for example correcting when errors detected, but differed in using functional strategies, such as listening to Chinese broadcasts. Li admitted that her study was subjective to some degree, as the sample was very small, and was not statistically analyzed using tools such as co-efficiency or a significance test. Y. Wu (2007) added the further criticism that Li's study lacked consistency and was

problematic in generalizing its results.

### **Lin and Lu's Study (2005)**

Lin and Lu (2005) examined 98 Vietnamese students' learning strategies in studying Chinese at three universities in Guangxi, P. R. China. They used SILL 7.0 to investigate their learning strategies from three perspectives: strategies use in general, gender and strategies use, and the number of years studying Chinese and strategies use. They employed Excel and SPSS to analyze results. The results indicated that the most frequently used strategies employed by Vietnamese students were metacognitive ( $M = 3.82$ ) and social ( $M = 3.61$ ) strategies, followed by cognitive ( $M = 3.32$ ) and compensation ( $M = 3.20$ ) strategies; their least used strategies were affective ( $M = 2.99$ ) and memory ( $M = 2.94$ ) strategies. This result indicates that Vietnamese students were active in using metacognitive, social, cognitive, and compensation strategies, all of which were above the medium use. This is similar to Jiang's findings (2000), where Jiang found that the most frequently used strategies for students from Asian countries such as Japan, Korea, Thailand, or India, were compensation ( $M = 3.52$ ) and metacognitive ( $M = 3.50$ ) strategies, followed by social ( $M = 3.44$ ) and cognitive ( $M = 3.30$ ) strategies; their least used strategies were memory ( $M = 2.75$ ) and affective ( $M = 3.03$ ) strategies. Both studies found low use of affective and memory strategies, and higher use of other strategies. In addition Lu and Lin also found that the most frequently used strategies for all students with different numbers of years were again metacognitive strategies and social strategies; the least used strategies were again affective and memory strategies.

In another study, Lu and Lin (2007) analyzed the relationship between Vietnamese students' strategies use in studying Chinese and their Chinese proficiency level. They employed SILL, 7.0 as a strategy questionnaire tool, and divided the students into three groups: a high grade group, a medium grade group, and a low grade group, based on their HSK marks. They found that, apart from memory strategies, the high-grade group used more strategies than the medium and low grade groups, although in general there was no significant difference in strategies use between the three groups.

### **Y. Wu's Study (2007)**

Y. Wu (2007) investigated general learning strategies use by 550 foreign students from 35 countries studying Chinese at four universities in Shanghai: East Normal University, Fudan University, Shanghai University, and Donghua University. Wu employed Oxford's SILL, 5.1, the 80-item instrument, to examine: (1) the general trend of strategies use by foreign students under the target language environment; (2) the differences in strategies used by students with different mother-tongues, different genders, and different ages; (3) the relationship between strategies use and number of years of studying Chinese and their proficiency level. To explain why he chose to use this instrument, Wu quoted Jiang's conclusions (2000): "as a tool to examine learning strategies use by foreign students from different countries, it [SILL] has good reliability and validity". In addition, Wu maintained that SILL can describe how learners use their strategies comprehensively. The SILL questionnaire was exactly the same as used by Jiang (2000) for the sake of comparing his results with other studies. The whole questionnaire consisted of four parts. In addition to SILL, Wu also included a background questionnaire to seek information on, for example, students' gender, age, nationality, mother-tongue, the number of years of studying Chinese, whether or not the HSK examination had been taken, and at what level, self-comment on proficiency, and the motivation for studying Chinese. An additional questionnaire was devised to assess listening and character learning strategies, as well as a questionnaire for teachers to use for commenting on their students' Chinese proficiency level. The results suggested that the most frequently used strategies in a descending order were: compensation ( $M = 3.52$ ), social ( $M = 3.43$ ), metacognitive ( $M = 3.36$ ), cognitive ( $M = 3.34$ ), affective ( $M = 3.0$ ), and memory ( $M = 2.81$ ) strategies. He concluded that this reflects a general tendency in terms of CFL students' LLS use.

Wu divided students into three groups, low, medium, and high proficiency groups, according to the teachers' comments on students' Chinese proficiency levels. He found different proficiency level students using strategies differently. The students' proficiency levels were significantly related to cognitive, metacognitive, compensation, and social strategies use, especially strongly significantly related to

cognitive and metacognitive strategies use. The proficiency level was also negatively related to memory and affective strategies use, however the relationship was not significant. When looking at different types of strategies use, Wu found that the three groups of students showed no significant difference in using memory strategies. In using cognitive strategies, there was a significant difference between the lower group and the other two groups ( $p < .05$ ). The low proficiency students used significantly less than medium and high proficiency students, and high proficiency students used this type of strategy most frequently among the three groups. In using compensation strategies, lower level students used significantly less than the high level students ( $p < .05$ ), but Wu found no difference between other groups. In using metacognitive strategies, the low level students used it significantly differently than the other two groups ( $p < .05$ ), but no difference was found between the other two groups. With regard to affective strategies, medium level groups used significantly more than the other two groups ( $p < .05$ ), but no difference was found between the other two. In terms of social strategies, lower level students used affective strategies significantly less than higher level students ( $p < .05$ ).

To sum up, in this Section 2.3, we have reviewed studies of LLS to investigate CFL and CSL students, i.e. non-heritage Chinese students' perceptions about their learning strategies in learning Chinese. As the current study intended to explore students' perceptions of LLS use in general, the studies selected here for review all dealt with this purpose, i.e. students' perceptions of their general LLS use, rather than LLS use in a specific area, such as reading and listening. As stated earlier, there is a shortage of research in LLS in studying Chinese, so the related studies available were few and the quality is variable (Y. Wu 2007). Some samples were very small, for example, Yang's (1998), Xu's (2000; 2003) Tao's (2002) and Li's (2004) ( $N_s=18$ ; 60; 66; 31 and 30, respectively). Some studies, such as Li's (2004), elicited problematic results which were criticized for their inconsistency (Y. Wu 2007). One crucial finding for our research is Tao's study (2002), in which he/she found a discrepancy between students and teachers' perceptions on students' LLS use. This finding has pedagogic importance as it gives warning signals to practitioners in terms of understanding students correctly. The following table summarizes some of

the scholars' works in which SILL was employed or adapted and the results in terms of strategies used (in a descending order) by foreign students in studying Chinese as a Foreign/Second Language:

**Table 2.8: Comparison of SILL Used by Chinese Scholars**

	Jiang (2000)	Tao (2002)	Lin and Lu (2005)	Wu (2007)
Instrument	SILL 5.1	SILL 7.0	SILL 7.0	SILL 5.1
LLS used in studying Chinese by Foreign Students (in general)	Soc (M=3.52) Met (M=3.48) Com (M=3.47) Cog (M=3.33) Aff (M=2.86) Mem (M=2.77)	Soc (M=3.96) Com (M=3.61) Aff (M=3.26) Mem (M=3.18) Met (M=3.12) Cog (M=2.94)		Com (M=3.52) Soc (M=3.43) Met (M=3.36) Cog (M=3.34) Aff (M=3.0) Mem (M=2.81)
English, Italian, German or French Students' LLS used in studying Chinese	Soc (M=3.69) Met (M=3.45) Cog (M=3.38) Com (M=3.35) Mem (M=2.8) Aff (M=2.53)			
Japanese, Korean, or Thai Students' LLS used in studying Chinese	Com (M=3.52) Met (M=3.50) Soc (M=3.44) Cog (M=3.30) Aff (M=3.03) Mem (M=2.75)			
Vietnamese Students' LLS used in studying Chinese			Met (M=3.82) Soc (M=3.61) Cog (M=3.32) Com (M=3.2) Aff (M=2.99) Mem (M=2.94)	

All these researchers were satisfied with SILL as an instrument for examining LLS; Jiang and Wu in particular agree upon SILL's "reliability and validity". Jiang (2000), Tao (2002), Lin and Lu (2005), and Y. Wu (2007), all found that LLS preferences were related to proficiency. Y. Wu (2007) found that Korean, Japanese, and Indonesian students used more affective strategies, but otherwise found no significant difference between Korean, Japanese and Indonesian language speaking students and English, Italian, French language speaking students in the use of memory, cognitive, and metacognitive strategies. Jiang (2000) also found that Japanese, Korean and Thai students tended to use more affective strategies and suggested that this may be due to the influence of culture. L. Shi (2006) and Gan (2009) however, attribute differences in learning strategies to institutional factors, such as institutional pedagogy and the specific social context. Jiang also recognized the importance of institutional factors, but in addition she also attributes differences in cognitive performance to 'culture', which, comparatively speaking (as nothing is absolute), is generally regarded as more long term in effect, being considered operative over spans of centuries or even millennia (Nisbett 2003).

As a result, one aim of the current study was to determine whether the non-heritage and heritage Chinese language students' perceptions of LLS are different. In addition, we were also interested to see whether the relationship between non-heritage students' proficiency level and their perceptions of LLS use are different from heritage students' proficiency level and their perceptions of LLS use. These issues constitute the first two research questions for the current study.

## **2.4 Criticisms and Development of Language Learner Strategies Research**

### ***2.4.1 Criticisms***

Over 30 years LLS research has come under fire from a variety of researchers such as: Tseng, Dörnyei, and Schmitt (2006); and Grenfell and Macaro (2007). Grenfell and Macaro (2007) claimed that LLS research is still an immature field, due to the wide scope of its undertakings: on the one hand, to identify how learners learn; on the other hand, to throw a spotlight on the interrelationship between teaching and

learning, both of which present the researcher with formidable challenges (p. 28). Tseng, Dörnyei, and Schmitt (2006), however, problematized LLS research and consequently suggested a shift, or, in other words, dismissal of LLS research.

The early critiques of LLS research focused upon the following issues: (1) a lack of consensus with regard to the nature of a strategy; (2) its size - whether strategies are 'big' or 'small', i.e., how one puts a boundary round an example of strategic behaviour, and location; (3) whether external behaviour could correctly predict cognitive operations, how these could be described and classified, and whether they applied to all groups of learners and to all aspects of a learner's performance. Given this lack of consensus, some have asked whether the time dedicated to learner training in strategies was justifiable (Grenfell and Macaro 2007, p. 20; Macaro 2009).

Dörnyei and Skehan (2003) examined definitions of strategies. They argued that a strategy cannot be at the same time cognitive, emotional, and behavioural (Dörnyei and Skehan 2003). They insisted that a strategy needs to be defined either as a neurological process, or as a cognitive operation, or as a behavioural act involving motor skills (*ibid.*). They were also sceptical that a strategy can have the dual function of contributing both to linguistic knowledge and to language skills. They therefore concluded that there is still no theoretical basis for the concept of LLS. Their most pessimistic conclusion is that, in order to develop a scientifically rigorous definition of a strategy, researchers would have to provide a coherent neurological and biological account of learner behaviours, something Dörnyei and Skehan consider impossible (Cohen and Macaro 2007, p. 25). For Dörnyei, the most fundamental problem is the literature's inability to explain the difference between 'engaging in an ordinary learning activity and a strategic learning activity'. The second most important problem for Dörnyei is the search for taxonomies of LLS. His fundamental criticism is that the best known of these (O'Malley and Chamot 1990; Oxford 1990) includes categories in which individual items clearly overlap – for example cognitive strategies and memory strategies (see Section 2.1.3 for Dörnyei's other criticism on SILL). In other words, Dörnyei is concerned that classification continues to be miscellaneous and ad hoc. His third criticism is that the most

commonly used strategy inventory is seriously flawed in its design. The design problems include the adoption of frequency-of-use scales with highly specific items of a different nature.

Dörnyei's critiques are pertinent to the on-going debate over whether or not strategy research is a worthwhile enterprise (Cohen and Macaro 2007). His main argument is that researchers have not managed to distinguish what makes a certain kind of behaviour strategic and what makes it non-strategic (Macaro 2009, p.17). As a result, Tseng, Dörnyei and Schmitt (2006) proposed to assess language learners' strategic learning in terms of their self-regulatory capacity. However, Dörnyei roundly supports continuing to teach about strategies in the classroom, thus marginalizing the whole field to an area of acceptable but unproven pedagogical activity – a sort of “it can't do any harm” approach (Cohen and Macaro 2007, p. 26). Similarly, Macaro (2009) suspected that “the era of the large scale, large strategy study is probably at an end” (p. 31).

#### ***2.4.2 Developments of Language Learner Strategies Research***

The LLS theory does have some flaws, especially in terms of some concepts and instruments. Take SILL as an example, the scales in this instrument were not psychometrically justifiable (see Dörnyei's critiques on SILL in Section 2.1.3). However, as mentioned in Section 2.1.3, there are advantages of using it in LLS research. For instance, it not only provides comprehensive coverage, it also has been submitted to reliability and construct validity measures and performs well (Oxford and Nyikos 1989). In addition, Oxford's taxonomy of six strategy factors provided the most consistent fit with learners' strategy use (Cohen and Macaro 2007, p. 95; Hsiao and Oxford 2002; Liu 2005; Macaro 2009). Despite the critiques from LLS researchers, such as Dörnyei et al, who consequently proposed a shift in LLS research “from focusing on the product – the actual techniques employed – to the self-regulatory process itself and the specific learner capacity underlying it” (Tseng, Dörnyei and Schmitt 2006, p. 81), and despite pessimism from others, such as Macaro (2009) (see above), other researchers, on the contrary, believe that LLS



research has made good contribution (Chamot 2005; Gao 2007) and it is worthwhile and important to continue this line of research (Chamot 2005; Gao 2007).

The criticisms on LLS research therefore provoke controversy (e.g., Gao 2007; Gu 2007; Grenfell and Macaro 2007); and serve as an incentive to further research and theorizing in the discipline of LLS (see the next Section and Gao 2007).

Responsive to Tseng, Dörnyei and Schmitt's self-regulatory proposal (2006), Gao (2007) argued that Tseng, Dörnyei and Schmitt's proposal failed to consider other competing constructs with similar connotations in LLS research, such as: Wenden's (1998, 2002) expositions of metacognition and Zimmerman's (2001) self-regulated learning approach (please refer to these papers for the details of the theories). In addition, Gao's response (2007) also addressed two developments in LLS research, contending that the developments could complement the advance of a broad perspective on learners' strategic learning in research (p. 615). The two developments Gao (2007) referred to are: LLS research's shifting from describing learners' strategy use to the processes underlying them; and the socio-cultural turn in LLS research.

Gao (2007) argued that recent LLS research is along the lines of Tseng, Dörnyei and Shmitt's (2006) proposed shift from describing learners' strategy use to the processes underlying them (2007, p. 619). Attention to this problem was paid by some, for instance Macaro (2006), Xiao and Oxford (2002). Hsiao and Oxford (2002) suggested creating a task-based strategy survey to capture learners' dynamic strategy use in specific task settings. Macaro (2006) on the other hand, put forward a new theoretical framework to define LLS research and used a task-based self-report protocol method to empirically test his framework. Gao (ibid) believed that these developments in LLS research can meaningfully complement the advance of Tseng, Dörnyei and Schmitt's self-regulation (2006) in research on learners' strategic learning (ibid).

The second development, Gao (2007) contended, is the socio-cultural turn in LLS research - limited in size but significant and important. Gao (2007) argued that a sociocultural perspective may be substituted for examining the connection between learners' actual strategy use and its underlying processes, for instance contexts and their metacognitive knowledge (p.619). He believed that by using qualitative and multi-method approaches such research can enhance understanding of learners' strategic learning as shaped by interaction between language learners' agency and social structure (ibid).

Likewise, Grenfell and Macaro (2007) acknowledged three developments of LLS research (p. 27 – 28):

- 1) The perspective adopted to discover what more successful learners do;
- 2) The shift from the notion of quantity to that of quality;
- 3) Detection in recognition of the problem of linking strategy use with achievement.

Other researchers, Macaro (2009), for instance, acknowledged that one major development in LLS strategy research has been towards the notion of orchestrating combinations of strategies and the role of metacognition in facilitating that process (p. 18), albeit his pessimistic view of the future of LLS.

As alike as Gao (2007), scholars such as Gu (2007), for instance, also believed it implausible to dismiss a line of robust research simply because a central concept is not clearly defined. Gu (ibid) acknowledged that thirty years of research has told LLS researchers that the concept of the language learner strategies is a multidimensional and elusive moving target, not a straightforward construct easy to conceptualize and operationalize (Cohen and Macaro, 2007, p. VII). Gu (2007) maintained that learner strategy research has gained vibrancy in applied linguistics enquiry since the original of Rubin (1975) and Stern (1975). The theoretical breadth and depth, as well as the empirical scope and rigor of Cohen and Macaro's (2007) edited book: *Language Learner Strategies: Thirty Years of Research and Practice*, reveals the maturity and vitality of this confident and self-reflective field (p.VII).

Considering learners' strategy use as a crucial component in this wider perspective on learners' strategic learning, Gao (2007) encouraged researchers to continue the search for answers or solutions to the theoretical and methodological problems in LLS research. He believed that such efforts will make LLS a promising field for rigorous research (Gao 2007, p. 619).

Likewise, researchers for example Griffith and Parr (2001), recognized that LLS have great potential to enhance language-learning ability (p. 253). Chamot (2005) further pointed out that: "The study of Language Learning Strategies will continue to develop as Second Language Acquisition researchers seek to understand different learner characteristics and the complex cognitive, social, and affective processes involved processing language input and using the language for a variety of purposes" (p. 126). Chamot (2005) argued that it is important that learning strategies research continue, for only through a better understanding of the learning and teaching process can more language learners achieve the level of success that currently characterizes only a small proportion of all students studying a foreign or second language around the world. Moreover, Chamot (2005) suggested that additional research in specific language learning contexts is essential to realizing its potential to enhance Second Language Acquisition and instruction (p. 126). It is hoped that the current research may contribute to this call.

From the above acknowledgement of the development of LLS research, and from the the inspirational calls of continuing this line of research raised by researchers and scholars, for instance, Griffith and Parr (2001), Chamot (2005), Gu (2007), and Gao (2007), we can see now how wrong Macaro's (2009) suspicion of the future of LLS. It is especially least true for the discipline of Second Language Acquisition of Chinese. Leading scholars saw the importance and needs of LLS research in the discipline a decade ago (Cui 2005; J. W. Shi 2006; Xu 2004; Zhao 2000). Since 2000 they have called on researchers to pay attention in this area – research on LLS in studying Chinese as a Second / Foreign Language. With the great increase in the numbers of learners of Chinese language (see Section 1.1), and with the advancement of research on Chinese as a Second / Foreign Language Acquisition

(see Section 1.2), LLS research in Chinese as an L2 has attracted scholars' attention (Cui 2005; J. W. Shi 2006; Xu 2004; Zhao 2000), and has gradually become a thriving area of research in the discipline of Chinese as a Second / Foreign Language Acquisition. A concrete example is: at the recent BCLTS Annual Conference, held from 29<sup>th</sup>, June to 1<sup>st</sup>, July, 2011 at the University of Edinburgh, practitioners and scholars from all over the world, such as UK, Germany, Italy, Canada, America, Singapore, Malaysia, P. R. China (including Taiwan, Hong Kong), to name a few, showed so much interest to LLS in studying Chinese that a consensus was reached: this issue, i.e. LLS in studying Chinese as a Second / Foreign Language Acquisition, was decided to be the main theme for the next annual conference<sup>15</sup>.

To conclude this Section, the current study, while recognizing the value of stable definitions, also concedes that even the best definition operates like a working hypothesis, whose value can only be assessed by the results it yields in actual research. While adopting Oxford's learning strategy categories, which have been employed successfully by researchers such as Jiang (2000), Gu (2005), and Y. Wu (2007), this study hopes to advance our understanding of strategy use by investigating and comparing language learning strategies adopted by two distinct groups: heritage and non-heritage Chinese language students. By identifying different combinations of strategies adopted by these two groups of students, we should be better able to ascertain the advantages of different strategies for learners who enjoy different kinds of skill sets, or whose goals may differ in fundamental ways due to situational or cultural factors. As the current study investigated and compared language learning strategies in specific language learning contexts, i.e. CHL and NCHL students studying Chinese at the higher education institutions and senior high schools in the UK, it is hoped that it contributes to the enhancement of both Second Language Acquisition and instruction in general, and Chinese as a Second/ Foreign Language Acquisition and instruction in particular, corresponding to the call raised by Chamot (2005) that "additional research in specific language learning contexts is essential to realizing its potential to enhance Second Language Acquisition and instruction" (p. 126).

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<sup>15</sup> This is first-hand information, as the current researcher presented and delivered a talk at the conference.

## **Summary**

In this chapter, we have reviewed relevant research on LLS use in general and LLS use in studying Chinese as an L2 in particular. We first looked at the background, the definition, classification and characteristics of LLS. We then reviewed language learning strategy research relating to learners' language proficiency, learners' motivation, and language learners' language learning beliefs, together with gender, age, mother tongue and length of time studying language. We also looked at seven typical investigations related to LLS in studying Chinese as a Foreign/Second Language. In addition, we looked at research methods in LLS, LLB, and LLS in studying Chinese as a Foreign/Second Language. In the last part of this chapter, we looked at some criticisms and at the development of language learning strategies research. In the next chapter, we will turn our attention to the literature on heritage language learning.

## **Chapter 3: Literature Review on Heritage Language Learning**

In the previous chapter, we looked at literature on LLS, including LLS in Chinese as a Foreign/ Second Language. In this chapter, we shall look at literature on heritage language learning. Due to the paucity of research on heritage language learning in the UK, this chapter will firstly borrow from the relatively rich research on this topic conducted in other contexts, for example in the U.S. Then we shall move on to consider specifically the situation in the U.K. The chapter is divided into four parts: In part one we look at Heritage Language Acquisition in general; in part two we look at studies in HLA, including research methods, and studies on heritage students' needs, motivations, learning strategies, and learning beliefs; in part three we pay special attention to the available studies on Chinese as a heritage language; in part four we turn our attention to heritage language study in the UK. In that part, we will review eight scholars' studies and one government document.

### **3.1 Heritage Language Acquisition**

Heritage language education is a relatively new field, as indicated in the title of Brinton, et al.'s book (2009): *Heritage Language Education: a New Field Emerging*. However, the term "Heritage Language" has been in use since the early 1970s, particularly in Canada, and the notion of "Heritage Language" has existed for a long time under names such as "home language", "identity language", "mother tongue", "circumstantial bilingualism", "community language", "complementary language", "ancestral language", "ethnic language", "immigrant language", "minority language", "original language", or "non-official language" in the UK, Australia, and the US (V. J. Cook 2009a; Duff and Li 2009; He 2008a, 2008b; Tosi 1984).

The systematic study of heritage language education offers multiple opportunities (Hornberger and Wang 2009) but, as a new field, it also creates many challenges (Carreira and Armengol 2001; Kono and McGinnis 2001). One of the most fundamental challenges is how to define "who is a heritage learner, and what criteria will be used to distinguish between the heritage learner and the foreign language

learner” (Kono and McGinnis 2001, p. 198). Lynch (2003b), for instance, suggested that “the term ‘heritage’ learner should not invoke any lesser or greater degree of bilingual competence through classifications such as ‘second’, ‘third’, or ‘fourth’ generation” (p. 30). Valdes (2001), however, distinguished two types of heritage learner, one of which this study has adopted as a working definition (cf. Section 1.4). Lack of an adequate definition can lead to problems in pedagogy, and administration as well (Kono and McGinnis 2001). In this part we will look first at the definitions of the term, and then turn to the state of research in the field.

### ***3.1.1 Defining the Term “Heritage Language Learners”***

Despite a consensus of opinion on the importance of defining the above term (Carreira 2004; Wiley 2001), there is little consensus on how HL learners should be defined (Deusen-Scholl 2003; Kondo-Brown 2005). The terms heritage language, heritage language learners/speakers, and heritage language programs, are problematic because, as Wiley (2001, p. 29) notes, they “attempt to apply a single label to a complex situation”. Fishman (2001) classified “Heritage Language” as immigrant languages, indigenous languages, and colonial languages, but the term “Heritage Language Learner” encompasses a large, heterogeneous population, and therefore defining HL learners is not a simple task (Kondo-Brown 2005, p. 564). There are many definitions for the term “Heritage Language Learner”, as indicated in Table 3.1 below. The existing definitions differ significantly regarding the conditions that bear on this label (Wiley 2001). Each definition might be useful relative to a specific context, with no single definition being capable of embracing all possible conditions (Carreira 2004).

**Table 3.1: Definitions for “Heritage Language Learner”**

<b>Researchers</b>	<b>Definition</b>
Brinton, Kagan, and Bauckus (2009)	Heritage students, who speak a language other than English at home but are educated in English.
He (2008b, p. 110)	A language student who is raised in a home where Chinese is spoken and who speaks or at least understand the language and is to some degree bilingual in Chinese and in English.
Hornberger and Wang (2009, p. 27)	In the US context, HLLs are individuals who have familial or ancestral ties to a particular language that is not English and who exert their agency in determining whether or not they are HLLs of that they are HLLs of that HL and HC.
Jia (2008, p. 189)	CHL speakers are referring to all speakers of Chinese as home language, regardless of their Chinese proficiency levels.
Lu and Li (2008, p. 93)	Students’ parents who had a Chinese-speaking background. Students with various amounts of Chinese exposure from family members and communities in the Mainland China, Taiwan, hog Kong, or South Pacific countries.
Campbell et al. (2000)	Any learners who have acquired their cultural and linguistic competence in a non-dominant language primarily through contact at home with foreign-born parents and /or other family members.
Valdes (2001)	Two types of HLs: 1) Individuals having historical or personal connection to a language such as an endangered indigenous language or immigrant language that is not normally taught in school; 2) Individuals who appear in a Foreign language classroom, who are raised in homes where a non-English language is spoken, speak or merely understand the HL, and are to some degree bilingual in English and the HL.
Weger-Guntharp (2008, p. 215)	Individuals who have one or more parents speak Chinese as their first language and who self-identified themselves as taking Chinese classes in part because of their ethnic Heritage.

Overall, Valdes’ definition (2001) (see Section 1.4) has proved to be most useful and is more widely used (Wiley 2001; Hornberger and Wang 2009). Her definition is linguistically oriented; her focus is on planning instruction and developing pedagogical theories for heritage language speakers, and so is useful for pedagogical purposes (Valdes 2001; Wiley 2001; Hornberger and Wang 2009).



Competing definitions of the heritage learner appear to differ most markedly with respect to significance of proficiency levels (Deusen-Scholl 2003, p. 221). Carreira (2004) observed that current definitions of HLL fall into one of three categories: the learner's place in the HL community, the learner's personal connection to the HL and HC (heritage culture) through his family background, and the learner's proficiency in the HL. She remarked that, considering the range of individuals and groups that can, theoretically, bear the label HLL, developing a description that is both explicit and sufficiently elastic is bound to be exceptionally difficult (Carreira 2004, p. 1).

Despite the difficulty of defining the term, researchers and practitioners feel the need of a precise definition (Carreira 2004; Hornberger and Wang 2009), for without it, the field cannot advance either pedagogically or theoretically. This is so because the labels and definitions chosen underpin decisions about course and program design, materials selection, placement and assessment of students, and teacher training, and are crucial to the task of tracking national and regional language education trends.

In addition, a good definition is a prerequisite for developing a theory of heritage language learning, which pivots on practitioners' ability to make explicit the traits that differentiate heritage language learners from second and first language learners (Lynch 2003a). Wiley (2001) argued that the labels we choose for HLL will ultimately shape not only how we conceive the language learners, but also the language they learn: "Deciding on what types of learners should be included under the heritage language label raises a number of issues related to identity and inclusion and exclusion. In revitalization efforts, for instance, ethno linguistic affiliation is important: some learners, with a desire to establish a connection with a past language, might not be speakers of that language yet" (p. 35).

Responding to the call, Wiley (2001) suggested considering learners' needs and sociolinguistic complexity when defining the term. Deusen-Scholl (2003) advised defining "Heritage Language" in such a way as to take into consideration both sociopolitical and pedagogical factors. Likewise, researchers should adopt a broad historical perspective when considering HLL, but should also consider those

sociopolitical contexts that favor the development of bilingual skills (Deusen-Scholl 2003, p. 215-216). Carreira (2004) proposed a dual approach to understand the term “Heritage Language Learner”. She suggested that, apart from describing the kinds of individuals that should be considered HLLs, a roadmap with regard to meeting heritage language learners’ learning needs would also be needed. Therefore she proposed:

- 1) Distinguishing HLLs from second-language learners (SLLs);
- 2) Distinguishing HLLs from first-language learners (L1Ls); and
- 3) Distinguishing between different types of HLLs.

(Carreira 2004)

Hornberger and Wang (2009), however, proposed an ecological model for examining identity and biliteracy<sup>16</sup> issues of concern to HLLs, and applied the continua of biliteracy model as an analytical framework for understanding the ecology of heritage language learning (Hornberger and Wang 2009, p. 6). They argued that the education of HLLs cannot begin and end with a linguistic perspective, or with a focus on the classroom alone. Rather, the context, content, media, and development dimensions of HLLs must be closely studied and understood by both the learners and educators (Hornberger and Wang 2009, p. 7).

The differing views on definitions of heritage language learners appear to fall into two camps roughly corresponding to the two types identified by Valdes, namely: (1) learners who have either a personal or historical connection to the culture associated with the language; (2) those who grew up in an environment in which they were exposed to the language and acquired some degree of competence in it. The first type, in the view of the current researcher, more properly belongs to the study of foreign language or second language learning. For this reason, this study is concerned with the latter group and the special needs they bring to the learning environment.

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<sup>16</sup> Biliteracy: the conjunction between bilingualism and literacy. Hornberger defined it as ‘any and all instances in which communication occurs in two or more languages in or around writing’ (Hornberger and Wang 2009, p. 7).

### **3.1.2 Second Language, Foreign language and Heritage Language Acquisition**

The term “second” generally is used to refer to any language other than the first language (Ellis 1994). Second Language Acquisition (SLA) is not intended to contrast with Foreign Language Acquisition (FLA) and it is used as a general term that embraces both untutored (or “naturalistic”) acquisition and tutored (or “classroom”) acquisition (Ellis 1985, p. 5).

Second language is used to refer to any additional language, embracing both foreign language and second languages in the more limited sense (G. Cook 2003, p. 71). Some identify a second language as one that functions in social or institutional ways within a community, for example English as a second language in the UK (Ellis 1994, p. 12). Foreign language, in contrast, is acquired in settings where the language does not function socially or otherwise, such as learning English in a classroom in Japan (Ellis 1994, p. 12).

The scope of Second Language Acquisition is defined broadly. It encompasses basic and applied work on the acquisition and loss of second (third, etc.) languages and dialects by children and adults, learning naturalistically and /or with aid of formal instruction, as individuals or in groups, in foreign, second language and lingua franca settings (Doughty and Long 2003, p. 3). For this reason research on Second Language Acquisition tends to focus on how children or adults who already know at least one language develop proficiency in the language they are learning, as well as how they make use of it (Spada and Lightbown 2002, p. 115).

V. J. Cook (2009a) divides language users into five groups:

- 1) Group A, the native local language refers to people speaking their L1 to each other, for example English L1 speaking in London or Polish L1 speakers in West London;
- 2) Group B, the central language refers to people using an L2 within a larger community, e.g., Bengali L1 speakers using English L2 in shops in London;
- 3) Group C, the super central language refers to people using an L2 internationally for specific functions, e.g., international communications,

- purpose-specific academic, religious, business etc;
- 4) Group D, the hypercentral language refers to people using an L2 globally for a wide range of functions, e.g., English as Lingua Franca;
  - 5) Group E, the identity language refers to people historically from a particular community (re-) acquiring its language as an L2, e.g., Mandarin for other Chinese dialect speakers, returnees;
  - 6) Group F, the personal language refers to people using an L2 with spouses, siblings or friends, e.g., bilingual couples, parents and children.

V. J. Cook (2009a) pointed out that SLA research is primarily about the Group B, the central language group, their implied goal is to be as close as possible to Group A native speakers (p. 65). SLA research has been making generalizations about Second Language Acquisition based on the CL group. He argued that, instead of treating SLA research as a unified whole, we need to be careful in specifying the language groups the learners belong to and want to belong to. V. J. Cook further pointed out that it is particularly difficult to generalize from the taught CL group as we cannot isolate the effects of teaching. He continued to point out that, for many of the other groups, teaching is not a major concern, but rather it is simply taken for granted that you have to be multilingual (p. 65).

Different views obtain with regard to the relationships among the three: Foreign Language Acquisition, Second Language Acquisition, and Heritage Language Acquisition, as well as the best way to conduct research on HLA.

Kondo-Brown (2005), for example, argued that researchers in the fields of foreign language education and applied linguistics have increasingly raised social, political, and pedagogical issues in relation to heritage language learning and teaching. She pointed out that heritage language education and Heritage Language Acquisition increasingly are becoming a “hot topic”, and may become a burgeoning sub discipline within the fields of foreign language education and applied linguistics (2005, 2008).

V. J. Cook (1999) proposed the idea of linguistic multi-competence: “the knowledge of more than one language in the same mind” (p. 1). It “is not restricted to the high level of balanced bilinguals but concerns the mind of any L2 user at any level of achievement” (V. J. Cook 2006, p. 4). As noted above, V. J. Cook distinguished nine different communities to which the L2 user might belong. Among these he identified the community of minority speakers (re)-acquiring the minority language, or what he calls the identity language (V. J. Cook 2007). He also distinguished a group user who share descent from a particular group and who are learning the language they identify with their historical origins (V. J. Cook 2007, p. 9). Cook noted that, in such cases, “Multi-Competence consists of adding an L2 as an extra identity reasons rather than for everyday use” (V. J. Cook 2007, p. 9).

Valdes (2005) proposed to alter the perspective of SLA by including second language (L2) users, to respond V. J. Cook’s proposal of linguistic multi-competence made in 1999. She further argued for the need to reconceptualize the field of SLA. This would go beyond all levels of L2 instruction, and would involve several types of language acquisition or development as well (Valdes 2005, p. 411). She avers that her notion of reconceptualization has the potential to allow the field of SLA to address some of the more intractable educational problems involving language (ibid).

Rather than draw a sharp line between HLA and SLA, Lynch (2003a) suggested approaching Heritage Language Acquisition through Second Language Acquisition and bilingualism. He argued that “the framing of a coherent agenda for research and theory building in the field of Heritage Language Acquisition depends partially on the research and theory already existent in Second Language Acquisition” (Lynch 2003a, p. 26). Likewise, with respect to research methodology, Lynch maintained that the kinds of questions necessary for HLA research will be much the same as those developed for SLA research. Similarly, the methodologies needed to respond to those questions will be much the same in both cases (Lynch 2003a, p. 2). He called for establishing the basis for a reliable and necessary research agenda for HLA by asking questions such as: 1) what do heritage language learners acquire? 2) How do they acquire it? 3) What differences are there in the way in which individual learners

acquire a heritage language? 4) What effects does instruction have on Heritage Language Acquisition (Lynch 2003a)? He argued that “central questions, methodologies, and theoretical constructs taken from the field of SLA will provide HLA researchers with a very apt and reliable starting point for developing their own theories and research agendas” (Lynch 2003a, p. 13).

Lynch’s viewpoints (2003) provide us with useful guideline when conducting research in Heritage Language Acquisition. These viewpoints also offered insights to the current research.

### **3.2 Research on Heritage Language Acquisition**

Fishman was the first to start research on heritage language when he established his language maintenance and language shift as a field of inquiry in 1968 (He 2008). In 1999, in order to build an education system that would be responsive to heritage communities and national language needs, and that would be capable of producing a broad cadre of citizens able to function professionally in both English and another language, the national foreign language center and the center for applied linguistics (CAL) in the US launched the heritage language initiative (Brecht and Ingold 2002). In 2000, University of California at Los Angeles (Campbell et al. 2000) launched a Steering Committee Conference that aimed to identify broad research areas and key researchable questions in heritage language education. The committee conference identified specific research questions under the categories of the heritage speaker, the family, the community, a language-specific focus, policies, programs, and assessment. It also recognized the urgent need for establishing a more valid and complete database for research purposes. In addition, it suggested that a multidisciplinary research effort was needed to explore the diverse aspects of heritage language maintenance and development. The meeting also concluded that it would be important to collaborate with organizations concerned with English as a second language, foreign language, and bilingual education, so as to clarify and focus the initiative (Campbell et al. 2000).

Heritage language education research has been conducted on heritage language communities; heritage language learning; heritage language education systems and strategies; language policies; and heritage language resources (Peyton et al. 2001). However, little research on heritage language speakers, communities, or programs has been carried out (Campbell 2001). Campbell (2001) summarized research needs under the following categories:

- Heritage language populations
- Heritage language communities
- Opportunities for heritage language speakers
- Heritage language learning
- Heritage language education systems and strategies
- Language policies
- Resources

Under the category of heritage language learning, Campbell (2001) stressed that “we need to know more about heritage languages, both their linguistic characteristics and their sociolinguistic status within the community, in addition, we need to understand how these languages may be learned, relearned, maintained, and developed” (p. 258). For instance: “What factors promote and inhibit heritage language learning? And what strategies promote heritage language relearning for speakers who have experienced attrition in their proficiency” (p. 259)?

### ***3.2.1 Research Methods on Heritage Language Learning***

As noted earlier, Lynch (2003b) suggested approaching Heritage Language Acquisition through Second Language Acquisition and Bilingualism. He called for establishing the basis for a reliable and necessary research agenda for HLA by asking questions such as: 1) what do heritage language learners acquire? 2) How do they acquire it? 3) What differences are there in the ways in which individual learners acquire a heritage language? 4) What effect does instruction have on Heritage Language Acquisition (Lynch 2003a)? While many HL researchers tend to stress fundamental differences between HLA and SLA, Lynch recognized the need to

understand those features that these two processes share in common. As a result he proposed undertaking comparative investigations between heritage learners and second language learners, no matter how these may be classified (Lynch 2003a, p. 13). He concluded that “comparative research must begin to uncover similarities between the two types of learners, following objective, empirical methodologies, in order to understand and explain fully the extent of the differences between these two groups, and to understand and explain fully the similarities between them” (ibid).

In line with this call, the current study compares variables such as motivations, beliefs and learning strategies between heritage and non-heritage Chinese students.

### ***3.2.2 Heritage Students' Needs***

There is general recognition that the needs of heritage learners are different from L2 learners (Kagan and Dillon 2001; Martínez 2003; Chevalier 2004, Kondo-Brown 2003, 2005): “The language learning behaviours and needs of HL learners are distinctly different from those of traditional FL students” (Kondo-Brown 2005, p. 564). To understand the needs of heritage students is crucially important, as less is known about them than those of FL learners (Kondo-Brown and Brown 2008). Kagan and Dillon (2001) compared the pedagogical needs between typical learners of Russian as a foreign language and the least proficient of all the heritage Russian students. As shown in Table 3.2, the results show vastly different needs for the two groups. Kagan and Dillon proposed that in order to meet the unique needs of heritage students, textbooks and other materials would need to be especially designed for them. They warned that placing heritage speakers together with FL speakers would be inadequate for the needs of the former and might intimidate the latter (Kagan and Dillon 2001). Other researchers, for example, Hancock (2002) also maintained that HL students need courses tailored to their specific needs.



**Table 3.2: Non-heritage and Heritage Learners' Pedagogical Needs (Kagan and Dillon, 2001, p. 6 – 7)**

<b>Teaching domains</b>	<b>Non-heritage Learners</b>	<b>Heritage Learners</b>
Pronunciation and intonation	instruction throughout course of study	typically none
Vocabulary	full range	age appropriate/literary/academic/formal
Grammar	micro-approach (e.g. case by case)	macro-approach (i.e. by concept)
Reading	small texts, gradually and slowly increasing in volume and complexity	fairly large and complex texts almost from the very beginning
Writing	Sentence level, gradually advancing to paragraph level. The writing even at high levels of proficiency rarely approaches native ability.	High degree of internal grammar allows expansive writing assignments at early stages of instruction. Macro-approach to writing: concentrate on the content and gradually improve spelling, grammar and stylistics.
Speaking	micro-approach: initially restricted to dialog, gradually progressing to monologue and discussion	macro-approach: emphasis on monologue and discussion
Listening	micro-approach: short simple texts, gradually increasing in volume and complexity	macro-approach: full range of native language input, i.e. movies, documentaries, lectures
Culture	micro-approach: initially isolated cultural items	macro-approach: full range of native language input, audio, visual, and print.

### ***3.2.3 Heritage Students' Motivations***

It is important to understand what motivates heritage students to study their heritage languages. Kono and McGinnis (2001) argued that the motivation for heritage language learners is often quite different from that of traditional foreign language Learners<sup>17</sup>, as many heritage language learners are concerned with identity, culture and language issues. For example, Russian heritage students study Russian in order to preserve or to recapture their Russian cultural heritage and to get acquainted with, or deepen, their knowledge of Russian literature and history (Kagan and Dillon 2001). Initial studies of motivation suggest a focus of instruction on culture/content-based curriculum for heritage students (Kagan and Dillon 2001).

Han (2003) surveyed 51 Korean heritage students and 101 Korean foreign language students at public high schools in southern California, to examine the effect of motivation on learning Korean language. The survey used questionnaire recording background information, self-assessed proficiency questions, and questions regarding motivation for learning Korean in terms of instrumental motivation, for example “I think it will be someday useful in getting a job”, and cultural motivation for instance “Korean will enable me to better understand Korean culture”. The results reveal that “cultural motivation has a substantial positive effect on Korean heritage language.” Instrumental motivation likewise had a positive effect, but not significantly so. In fact, Han found that emphasizing the utilitarian value of the language for jobs or scores did not enhance Korean HL proficiency (p. 51 – 52). Han (2003) concluded that an interest in the culture could enhance Korean HL proficiency and that learning Korean, in turn, could increase interest in Korean culture (p. 52 – 53).

Geisherik (2004) investigated 23 heritage Russian students and 17 non-heritage Russian students regarding their motivation for studying Russian in two Canadian universities. Her findings revealed that the majority of Russian heritage students

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<sup>17</sup> In quite a few literatures, heritage language learners were compared with foreign language learners. This might not be fair, considering the great differences between the two types of students. Yet, in reality, heritage language learners were mostly treated as same as foreign language learners, and were placed in the same group. This is an issue that needs more attention, which was also the purpose of this study.

showed strong integrative motivation.

Noels (2005) examined the motivations of learners of German and explored the interrelations between orientations and other relevant variables in order to understand whether two sets of orientations, integrative/instrumental and intrinsic/extrinsic, differ across heritage and non-heritage learners, and to determine whether different motivational processes may be more or less important for the two groups. Forty-one heritage and 55 non-heritage German language students from a Canadian university took part in her study. A multiple-choice question was used to determine the Heritage students' status, by which students were asked to identify whether the mother, the father, both parents, or neither parent had a German-speaking background. The students who claimed to have one or both parent/s with such a background were classified as heritage language learners and the rest as non-heritage language learners. The means analyses suggested that heritage learners wanted to learn German for reasons such as: ethnic identity and achieving goals that were important for their self-concept. Noels posited that heritage learners were more likely to learn German so as to interact with the community than was the case with non-heritage learners. In addition, heritage students were significantly more integratively oriented than non-heritage students (Noels 2005).

In order to understand motivational differences between heritage and non-heritage Japanese students studying Japanese, Nunn (2005, 2006) investigated motivational differences including integrative motivations<sup>18</sup>; instrumental motivations<sup>19</sup>; intrinsic motivations<sup>20</sup>; heritage-related motivations<sup>21</sup>; travel-related motivations<sup>22</sup>; self-efficacy<sup>23</sup>; goal salience<sup>24</sup>; and goal strategy<sup>25</sup>, among three ethnic high school

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<sup>18</sup> One example for this type of motivation provided in Nun's studies was: I will be able to participate in the cultural activities of Japanese group.

<sup>19</sup> One example for this type of motivation provided in Nun's studies was: I will need the language for my future career.

<sup>20</sup> One example for this type of motivation provided in Nun's studies was: I will enjoy learning Japanese very much.

<sup>21</sup> One example for this type of motivation provided in Nun's studies was: Japanese language is my heritage language, as family members, such as parent/s, relatives, grandparents or siblings speak Japanese.

<sup>22</sup> One example for this type of motivation provided in Nun's studies was: I want to work abroad.

<sup>23</sup> One example for this type of motivation provided in Nun's studies was: I am certain I can master the skills taught in this class.

students groups at Hawaii, New York, Texas, and southern California. The number of Japanese heritage students, Asian students for example Chinese, Korean, and Vietnamese students, and Non-Asian students such as American, Hispanic, African American, and American Indian students, were 135, 69, and 73, respectively.

The instruments used consisted of two parts: 1) students' background and self-rated Japanese proficiency, and 2) motivational information questionnaires adapted from motivational research by the University of Kansas. The results indicated that Japanese heritage students showed the highest heritage-related motivation and the least intrinsic motivation, while American, Hispanic, African American, and American Indian students showed the highest intrinsic motivation. The results also indicated that Japanese language proficiency positively and significantly correlates with heritage related motivation in both Japanese heritage and Asian students, such as Chinese, Korean, and Vietnamese students, while no significant correlation was found in the non-Asian group, such as American, Hispanic, African American, and American Indian students (Nunn 2006). Nunn (2006) concluded that diverse ethnic groups differed in the types of motivations, and the differences of motivations in the groups could have resulted from their ethnic and family cultural backgrounds (p. 19). Nunn attributes differences in thought and behaviour to cultural background, but the data are open to other interpretations. According to the definition of "intrinsic motivation" in the current study (see Section 1.4), Nun's "heritage-related motivation" falls into our "intrinsic motivation". If Nun's "heritage-related motivation" was classified as "intrinsic motivation", Nunn's conclusions would be significantly altered.

Lee and Kim (2008) adopted Tremblay and Gardner's framework to investigate the learners' attitudes toward HL with respect to ethno linguistic vitality, HL learners' motivational orientation, attitudes towards language courses, and learners' perceptions of self-efficacy. They surveyed 101 Korean heritage students from two universities in the US by using an adapted questionnaire. They also conducted semi-

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<sup>24</sup> One example for this type of motivation provided in Nun's studies was: I have a clear idea of how much Japanese I want to learn.

<sup>25</sup> One example for this type of motivation provided in Nun's studies was: when I study Japanese I often refer to a goal.

structured interviews, interviewing randomly selected five female and five male Korean heritage students. They found that learners regarded the learning of Korean to be linked to their ethnic identity as the chief motivation. In addition, their motivations for learning Korean were integrative, and this remained constant across proficiency levels, despite the fact that learners' attitudes toward the status or utility of Korean in the wider sociopolitical context of the US were not favorable (Lee and Kim 2008).

Kondo-Brown (2009) investigated L2 reading motivations within the context of teaching reading as an FL or HL in upper-level courses in East Asian languages such as Chinese, Japanese and Korean. She explored issues such as: whether the identified L2 reading motivation variables were equal for the FL and HL groups; whether they had similar or different L2 reading motivation profiles, and to what degree motivation was related to the target language reading ability estimates for each of the FL and HL groups (p. 181 – 182). Kondo-Brown surveyed 58 FL students, and 65 HL students (whose parents were immigrants or L1 speakers of the target language) studying Chinese, Japanese, or Korean at an American public university. Her results indicated that students in both groups were strongly motivated to read, or at least strongly interested in reading in the target language, because of extrinsic values (knowledge-based and instrumental values). Moreover, for both groups, those with high ratings seem to have been more intrinsically involved in reading in that language (p. 179).

#### ***3.2.4 Heritage Students' Learning Strategies***

Although learning strategies of language learners have been researched extensively, research on the use of LLS by heritage speakers remains scarce (Hancock 2002). To the knowledge of the current researcher, Hancock's study (2002): *Heritage Spanish Speakers' Language Learning Strategies*; Keatley and her colleagues' study (2004): *Learning Strategies of Students of Arabic*; and Olivares-Cuhat's study (2002): *Learning Strategies and Achievement in the Spanish Writing Class: a Case Study*; are among the very few available.

Hancock (2002) documented some issues that affected heritage Spanish speakers' Spanish language learning experience, such as: varieties of Spanish, cultural connections, and non-native Spanish teachers. She suggested that educators could facilitate students' language development by understanding better their language learning strategies and appropriate instructional methodologies. She pointed out that Oxford's research does not deal with students who are learning their own language, but conceded that Oxford's learning strategies work is useful for FL and ESL teachers and students (p. 2). Hancock called for research and practice focused on the language learning strategies of heritage Spanish speakers, so educators can learn how to work more effectively with HL students. In particular, Hancock proposed that the development of language learning scenarios for heritage Spanish speakers, and the development of a language learning strategies inventory for heritage Spanish speakers etc., were needed (Hancock 2002). She argued that the purpose of conducting this research would be to "increase students' awareness of the social issues in learning their own language, teach them how to identify and take advantage of the learning strategies they are comfortable with, and expose them to new strategies to enhance their learning" (p. 2).

Keatley et al (2004) investigated learning strategies used by university students of less commonly taught languages, in their case, Arabic. The results indicated that heritage speakers of Arabic and students of Arabic as a foreign language shared many of the same challenges and learning strategies for learning modern standard Arabic. The study also demonstrated differences, however (Keatley et. al. 2004). They reported that Heritage speakers used metacognitive strategies to overcome interference from their Arabic dialects when they attempted to speak modern standard Arabic, but unlike the foreign language students, had no difficulty in discriminating Arabic sounds and hence did not use any learning strategies for listening comprehension (ibid).

Olivares-Cuhat (2002) compared achievement on a writing sample between those students speaking Spanish as a first or heritage language, and those learning Spanish as a foreign language. He found that students with a Spanish language background

were marked higher on their writing samples than the other students, but they also showed a greater preference for affective and memory strategies and these latter were highly correlated with writing achievement. However, the sample was small with nine heritage and 11 non-heritage Spanish students.

### ***3.2.5 Heritage Students' Learning Beliefs***

Horwitz (1999) pointed out that there had been no examination of how learning beliefs might differ across learner groups, despite common consent that learning beliefs about language learning is essential to understanding learner strategies and planning appropriate language instruction. Horwitz (1999) encouraged researchers to pay mind to the range of variation or uniformity of response, particularly in relation to cultural background (p. 558). However, to the knowledge of the current researcher, no research on heritage students' learning beliefs has been conducted, apart from Horwitz's (1999).

In her *Cultural and Situational Influences on Foreign Language Learners' Beliefs about Language Learning: a Review of BALL Studies*, Horwitz (1999) compared seven cultural groups and language learning contexts from several representative studies. In this study, Horwitz investigated similarities and differences regarding students' beliefs about language learning. The seven groups included one that she labeled the Turkish heritage group. However, Horwitz used Turkish heritage throughout the paper to refer to Kunt's (one of studies Horwitz mentioned and compared in her 1999 study, same as bellow when discussing about Kunt or Kunt's study) mixed groups of Turkish and Turkish-Cypriote learners, without providing a working definition as to which were the Turkish heritage students. This begs the question: does it refer to Turkish heritage learners studying English? Or does it refer to Turkish learners studying Turkish? It appears to refer to the former, as 'the two Turkish heritage groups in Kunt study were pre-university students enrolled in a college preparatory program in order to develop the English skills necessary for university entrance' (Horwitz 1999, p. 560). Nevertheless, Horwitz identified belief differences between and among all the learning groups. She found that the difference was chiefly in their beliefs related to the difficulty and nature of language learning.

These groups also differed as to their beliefs on the category of “motivations and expectations”. She found that Turkish heritage learners believed more strongly that learning vocabulary is a key to foreign language learning. In addition, the Turkish heritage groups were instrumentally motivated with the American groups tending toward more integrative motivations. She further suggested that cultural and situational factors were influential elements affecting learner beliefs.

In her *Language Ideologies and the Teaching of Heritage Languages*, Valdes (2003) pointed out that particular attention to this area of research would be needed, and specifically she raised the following questions:

- What sets of beliefs about language do faculty and students articulate in departments of foreign languages?
- What views do they have about the type of language that should be taught in the department?
- What views do they have about speakers of different types of language (e.g., standard language, colloquial language, popular jargon, regional varieties, and class varieties)?
- What kinds of understandings do they have about societal and individual bilingualism?
- To what degree are language practices in particular language departments colored by a nationalist aesthetic (Thomas 1991) that is concerned with the characteristic features of the original national language and culture?

(Valdes 2003, p. 1 – 2)

Valdes’ questions expose research gaps in the field of heritage language learning, and also serve to identify fruitful directions for research in this area.

### **3.3 Research on Chinese as a Heritage Language Acquisition**

Comanaru and Noels (2009), observed that, to date, there has been little work comparing HL and NHL learners’ affective profile, although a great deal of research



has been devoted to the study of HL and NHL learners' linguistic profile (p. 132). This is also true of CHL acquisition research. According to He (2008a, 2008b), most research on Chinese Heritage Language Acquisition so far has focused on:

- What does it mean to know Chinese as a heritage language?
- How does Chinese heritage culture relate to Chinese heritage language?
- What constitutes evidence of CHL learning?
- Via what route is HL acquired and socialized?

In this Section we provide an overview of research on CHL acquisition in terms of CHL learning needs, CHL motivations, and CHL learning beliefs. We will not be able to look at CHL learning strategies in studying Chinese, as to the best knowledge of the current researcher, there is no empirical research of this sort available.

### ***3.3.1 Chinese as a Heritage Language Students' Learning Needs***

As less is known about HL learners than foreign language learners, needs assessment is a critical aspect in developing heritage language curriculum and delivering instruction (Kondo-Brown 2008). Many researchers, as well as Chinese language educators, e.g., S. Wu (2008), are concerned about Chinese heritage students' learning needs. There is agreement that different learning needs exist among CHL (S. Wu 2008).

Drawing from her own professional experience and research, S. Wu (2008) claimed that CHL and CFL students are different in their motivations, distribution of language skills, comfort level with language unknowns, approach to learning grammar, pronunciation difficulties, and cultural awareness (p. 273). For example, CHL have a more uneven distribution of language skills. She also found that CHL are more comfortable with language unknowns, that there are differences in pronunciation challenges among CHL, and that different degrees and perspectives about Chinese culture can be found among CHL students (S. Wu 2008) (for motivational differences, please see the next Section).

Kondo-Brown (2008) provided a review of the literature on Japanese, Korean, and Chinese HL learner needs. She pointed out that CHL students share diverse dialect backgrounds, and that they are sensitive about teachers' pedagogical choices, such as the range of vocabulary permitted for use in the classroom, or discrepancies between classroom Chinese and home varieties. She also found that CHL students are very much aware that NCHL students have mixed feelings about their presence in class during their pair and group work (p. 21). Kondo-Brown (2008) reported that due to the high heterogeneous CHL populations within a given program or course, CHL students have different needs for Chinese language learning, including different needs in learning Chinese characters in terms of simplified or traditional scripts. In addition, Kondo-Brown (2008) argued that CHL students have different situational needs, and different needs in curriculum and materials development and assessment.

### **3.3.2 Chinese as a Heritage Language Students' Motivations**

In most recent years, there have been some studies related to Chinese heritage students' motivations, for example Le's: *Affective Characteristics of American Students Studying Chinese in China: a Study of Heritage and Non-heritage Learners' Beliefs and Foreign Language Anxiety* (2004); Lu and Li's: *Motivation and Achievement in Chinese Language Learning, a Comparative Analysis* (2008); Weger-Guntharp's study on *Affective Needs of Limited Proficiency Heritage Language Learners: Perspectives from a Chinese Foreign Language Classroom* (2008); S. Wu's: *Robust Learning for Heritage Chinese Learners: Motivation, Linguistics and Technology* (2008); and Comanaru and Noel's: *Self-determination, Motivation, and the Learning of Chinese as a Heritage Language* (2009).

Some research has reported that heritage Chinese students show strong integrative orientation; other research reports that CHL students are strongly motivated by both integrative orientation and instrumental orientation (please refer to the Section 2.2.3 for these conceptions). In addition, instrumental orientation was more geared to future career opportunities than to imminent academic achievement. Still others argued that heritage Chinese students wanted to know more about their cultural roots

and identities, but also wanted to participate in the burgeoning P.R. China's economy (Li and Duff 2008). Below is an overview of these studies.

**Le's Study (2004)**

Le (2004) investigated affective characteristics for American college students studying Chinese in China, such as their reasons for learning Chinese (please see the next Section for more information on how Le conducted this study). Le found: interest in culture, interest in the language, the need for future career goals, family influence, and the need for travel were the five most commonly cited motivated factors. Table 3.3 below is his summary of the orders of the five most important factors for each group for learning Chinese: Group A, the Chinese background group, Group B, the non-Chinese Asian background group, including for example Japanese, Korean, Vietnamese students, and Group C, the other background group, including for instance American, Hispanics and Africa Americans students.

**Table 3.3: Orders of the Five Most Important Factors for Each Group in Learning Chinese in Le's Study (2004, p.77)**

Order	Group A	Group B	Group C
(1)	Interest in culture	Interest in the language	Family influence
(2)	Interest in the language	Interest in culture	Interest in the language
(3)	Need for future career	Need for future career	Interest in culture
(4)	Need for travel	Need for travel	Friend and relative influence
(5)	Friend and relative influence	Friend and relative influence	Need for future career

### **Lu and Li's Study (2008)**

Lu and Li (2008) conducted a comparative study to examine the effect of different motivational factors: integrative, instrumental, and situational<sup>26</sup> on heritage and non-heritage college students' Chinese learning in a mixed classroom. They surveyed 120 students from nine Chinese colleges at two universities in western New York: 59 heritage Chinese students with various amounts of Chinese exposure from family and communities in the mainland China, Taiwan, Hong Kong, or south Pacific countries, and 61 non-heritage students (19 Asian non-Chinese students from Japan, Korea, and Vietnam and 42 European and African Americans whose native language is English). The instruments consisted of three parts. One part included 18 questions on integrative and instrumental orientation adapted from Gardner's Attitude/Motivation Test Battery; 14 questions on learning contexts or situational factors adapted from Dörnyei's (1994) theoretic framework on situational motivation; and also six questions on learners' expectations for Chinese language learning in their future studies. A descriptive analysis indicated that integrative motivation is more important to students' overall test scores, despite the fact that both integrative and instrumental motivations are important for students' self-confidence in their language proficiency. In addition, contrary to previous findings, heritage language students were found to be more influenced by instrumental motivation than non-heritage language students, especially European English speaking students (Lu and Li, 2008). Lu and Li pointed out that students' confidence in their Chinese ability with respect to the four skills can be affected by different kinds of motivations. They reasoned, therefore, that different kinds of instruction would be necessary to meet students' different needs (Lu and Li 2008, p. 102).

### **Weger-Guntharp's Study (2008)**

In order to gain insight into the complexities of the language classroom shared by FL and HL learners, Weger-Guntharp (2008) explored what it means for heritage Chinese students to be enrolled in, and to attend, a course predominately attended by

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<sup>26</sup> Lu and Li (2008) referred to the situational factors as learning context, and are factors such as teacher effect, course style, and grade level etc (p. 94).

Chinese foreign language students (p. 213). She conducted her study at a private US university in 2003. The Chinese department provided a heritage track and a regular track for students studying Chinese. For the purpose of this study, the participants were drawn from the regular track classes, which had both traditional FL learners and Chinese heritage language learners as well. The researcher carried out her study by using a biographical data questionnaire, a short answer survey, and informal, open-ended interviews (p. 214 – 215). Twenty-five students participated in this study, eight heritage Chinese students and 17 CFL students, males and females with ages ranging from 18-22. The researcher defined heritage Chinese students as those: “who have one or more parents who speak Chinese as their first language and who self-identified themselves as taking Chinese classes in part because of their ethnic heritage” (p. 215). The results indicated a motivational distinction between CHL and CFL students: the CHL students have high motivation in pursuing Chinese language learning as a means of connecting with a part of their ethnic identity. The CHL students strongly agreed that exploring one’s heritage status was a major reason, and “learning Chinese is important to me in order to be able to get to know the life of Chinese speaking people better” (Weger-Guntharp 2008). In addition, all the CHL students considered their heritage as a resource to be tapped for economic and/or academic reasons; they perceived that enhancing Chinese proficiency was a key to their future business success (ibid).

### **S. Wu’s Study (2008)**

Drawing on her own experiences as a Chinese faculty member at a US University in designing a curriculum, developing a textbook for CHL students, doing research on CHL, and discussing CHL instruction with language professionals, as well as multiple efforts to collect data from her students, S. Wu (2008) examined CHL’s motivation in studying Chinese. She argued that CHL and CTB (Chinese True Beginner Students) shared some of the same motivations such as: career motivation and personal interests, Chinese martial arts, or a Chinese friend. However, CHL were also motivated to learn Chinese in order to make a connection with their heritage, to communicate better with their parents, grandparents, or other relatives, and to become more literate within their Chinese communities (S. Wu 2008, p. 274).

S. Wu averred that many CHL were also interested in learning more about Chinese traditions, literature, and legends. The researcher identified three types of motivations for CHL students learning Chinese, namely: long-term career goals, seeking their heritage, and personal interest (S. Wu 2008, p. 274).

### **Comanaru and Noels' Study (2009)**

Comanaru and Noels (2009) examined motivational differences and similarities between university CHL and CFL, as well as differences and similarities between subgroups of CHL students through self-determination theory. There were three groups of participants in the total sample: the Chinese – Chinese group, the English – Chinese group, and the English – English group. The Chinese – Chinese group was a heritage group in which each student had at least one native Chinese-speaking parent and the student himself/herself spoke a variety of Chinese, or Chinese and English, as a native language. The English – Chinese group also was a heritage group, although each student spoke only English as a native language. The English – English group was a non-heritage group in which students had no Chinese ancestry and the students' L1 was English. There were 72, 36, and 33 students in each group, with ages ranging from 18 – 33, 18 – 24, and 18 – 54, respectively. The researchers adapted and created a questionnaire based on existing measures to fit the Chinese language context, including 33 items on motivational orientations, 19 items on psychological needs, 10 items on engagement in learning, and three items on community engagement. An open-ended question asked participants their reasons for learning Chinese.

The results indicated that a form of extrinsic motivation was endorsed by most participants in each group. They found no motivational differences between HL learners (Comanaru and Noels 2009, p. 151). Both HL groups indicated most strongly that they chose to learn Chinese as a means to achieve a goal that was personally important for them. HL also indicated that they learned Chinese because it was enjoyable and stimulating, because it was an integral part of who they were. In addition, both HL groups felt equally strongly that their Chinese ethnicity was central to their sense of self (Comanaru and Noels 2009, p. 151). Furthermore, the

researchers found that HL students felt more pressure to learn Chinese than the NHL group, either because of pressures from others or because of a self-imposed feeling that they ought to learn the language. The HL students also reported a stronger sense of relatedness to others in the class and to the Chinese community and culture than did the NHL learners. Comanaru and Noel (2009) concluded that the two groups of HL learners can be similarly defined, and the HL learners experience social and psychological dynamics that NHL learners do not (Comanaru and Noels 2009, p. 151 – 152).

### ***3.3.3 Chinese as a Heritage Language Students' Language Learning Beliefs***

Le (2004) investigated American college students' affective characteristics studying Chinese in China, such as their reasons for learning Chinese and studying abroad, their beliefs about language learning and their foreign language anxiety. A total of 133 American students enrolled in Chinese programs in seven key universities in China participated in the study. The students were divided into three groups: Group A: Chinese background group (37 students, 27.8%), which included students with Chinese family backgrounds from any country and area; Group B: non-Chinese Asian background group (20 students, 15.0%), which included students with Japanese, Korean, Vietnamese and other Southeast Asian backgrounds; and Group C: Other background group (76 students, 57.1%), which included 71 Caucasians, three Hispanics and two African Americans (p. 60). In order to suit the context of learning Chinese in China, one of the survey instruments that Le used was a modified version of Horwitz's BALLI (1987). The modified version included the original 34 items and an additional 12 items. The original items were modified for the Chinese learning situation. The 12 additional items were created in consideration of the characteristics of Chinese language and the situation of studying Chinese in China (p. 61).

Le (2004) found some important differences in his study with regard to beliefs about language learning, for example:

- 1) More students believed that Chinese is a difficult language in Group C than in Groups A and B. Le thought that this might be because Group C students had much higher goals for reading and writing Chinese;

- 2) The students in Group B revealed more confidence in the belief that they could ultimately learn to speak the Chinese language very well than did Groups A and C;
- 3) Group C students disagreed more with the belief that “people who are good at mathematics or science are not good at learning foreign languages” than did Group A and B;
- 4) Group A had a much stronger belief about the necessity and importance of learning Chinese culture and practicing Chinese with Chinese people, than did those in Groups B and C.

To sum up, in this Section, 3.3, we have reviewed studies on Chinese as a heritage language, including heritage Chinese students’ motivations and beliefs with regard to studying Chinese. Our aim in the current study was therefore to determine whether there are differences in the motivations and beliefs regarding the study of Chinese in the two groups of students, i.e. heritage and non-heritage Chinese language students. In addition, we also hoped to illuminate: 1) whether the relationship between heritage students’ motivations and their perceptions of LLS use differ from that of non-heritage students’ motivations and their perceptions of LLS use? 2) whether the relationship between heritage students’ language learning beliefs and their perceptions of LLS use differs from that of non-heritage students’ LLB and their perceptions of LLS use? These constitute another two important research questions for this study.

### **3.4 Heritage Language Study in the UK**

As a term “Heritage Language” is usually not used in the UK. Instead, “Community Language”, or “Minority Language”, or “Mother-Tongue”, are more common (Barradas 2004; Duff and Li 2009; He 2008a, 2008b). Studies on Chinese as a heritage language, especially aspects of affective factors are rare in the UK. However, there is some research on community language and related topics, even though it is a consensus that there has been little attention to this area (Anderson 2008a, 2008b; Barradas 2004; Francis et al. 2009; Martin et al. 2003; Mau et al. 2009; Tosi 1984; Li. W 2006; C. Wu 2006). In this part, we look at eight scholars’ studies, plus McPake



and Sachdev's report for CILT<sup>27</sup> (2008).

### **3.4.1 Tosi's Study (1984)**

As in America, the interest in language maintenance in Europe also first took root during the 1980's (Tosi 1984). The Commission of the European Economic Community provided Bedfordshire local education authority with a grant to run a pilot project on 'Mother Tongue and Culture Teaching' from 1976 to 1980, which was a typical case at that time. Tosi (1984) worked on this project for four years. By analyzing literature, observation, experiments, and consultations within the community, he investigated the community and language of Italians, as well as classes of Italian offered for 5 – 9 year old pupils in Bedford.

Tosi (ibid) described five major patterns of heritage language teaching programs, which he referred to as mother tongue teaching programs, either in the curriculum developed by the school, or "hosted" by its authorities adjoining the curriculum or in areas inside, or even in programs detached both in relation to content and physically from the school. He documented that the school's attitudes towards teaching minority language varied from outright prohibition, to neutrality, and in some cases could even be used as media of instruction (p. 136).

Tosi's (ibid) descriptions of the five models are:

- 1) the first model involved the use of the mother tongue for the teaching of other subjects in all the different curricular areas, and was firmly integrated into the curriculum (p. 138 – 139);
- 2) The second was also built into the curriculum, and the mother tongue was used as a point of departure, but only for a portion of the timetable equivalent to half or less of the school curriculum (p. 139);

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<sup>27</sup> CILT, namely the National Centre for Languages, is the UK standard-setting body for languages. It works to convince people of the benefits of learning and using more than one language, and helps to implement policies to improve the teaching and learning of languages and provide independent advice on all aspects of language teaching, learning and use. [www.cilt.org.uk](http://www.cilt.org.uk)

- 3) The third model also included a mother tongue component in the curriculum, but it differed from the previous programs in that the learners' bilingual state was neither taken into account as a resource to develop, nor as an obstacle to monolingual education (p. 139);
- 4) In the fourth model, mother tongue classes were offered outside the school curriculum; they were taught by external instructors and financed, administered, and supervised by non-statutory bodies. The classes might be incorporated within the school physically, but would be held outside the normal timetable – during lunch, playtime, or club hours – and not always coordinated with its teaching content or procedures (p. 140);
- 5) In the fifth model, the mother tongue program remained separate, even physically, from the community school (p. 141).

Tosi argued that the course and materials planner needs to consider carefully how the relationship of the mother tongue program was construed vis-à-vis the school curriculum (p. 142). He explained:

“With regard to pupils' involvement and motivation, the school's attitude and cooperation can influence critically the scope and success of the program. At the level of coordination of the learning, the school has the authority to plan the implementation of coordinated syllabuses, materials and procedures for L1 and L2 teaching. In respect of resources, the school alone can determine whether, and to what extent, the minority language teacher may or may not use the equipment allocated by the authorities to serve the educational needs of its community. Finally, at the level of planning instruction and instruments, all the previous conditions of curriculum and resources become instrumental in the preparation of a syllabus containing realistic objects, matching, on the one side, the pupil's linguistic background, and on the other, the minority community's linguistic needs and cultural aspirations.”

(Tosi 1984, p.142)

Tosi (1984) divided minority language programs into three categories in relation to teaching objectives: (1) an integrated model; (2) a supplementary model; and (3) an informal model. In the first, linguistic objectives are closely integrated with the curriculum with “both linguistic skills and cognitive use of the minority language remaining instrumental”. In the second model, linguistic objectives remain independent of the curriculum, while the third model describes programs lacking specific linguistic objectives (p.143 – 144).

In addition, an experiment of standardization for classes of Italian for 5-9 year old pupils was devised in order to achieve a level of fluency and literacy in Standard Italian approximating as far as possible that of the second language at the end of the primary cycle in the project (Tosi 1984). Although the experiment was successful, Tosi maintained that conditions for the success of the Bedford project and its objectives of language standardization could not be generalized to other programs of Italian as “Mother tongue” teaching elsewhere. He averred that there was no “general formula for the establishment of objectives, curriculum and methodology for the teaching of a language as a mother tongue in the context of second language learning” (Tosi 1984, p.171). He explained that this was because language policy could not be separated from social policy. For each community the program planners would have to identify goals that could address that community’ needs (Tosi 1984, p. 172).

### **3.4.2 *Martin et al. ’s Study (2003)***

Martin, Creese, and Bhatt (2003) examined complementary schools in Leicester along with their contribution to political, social and economic life in the wider community in sustaining languages, and literacy, and adapting to the changing nature of young people’s identities.

Complementary schools are voluntary schools, often called “community” or “supplementary” schools that serve specific linguistic or religious and cultural communities, particularly through mother-tongue classes (Martin et al. 2003, p.1). The term “Complementary Schools” stresses the positive and complementary

function for those who teach or learn in them (ibid). By defining these particular schools as complementary schools, the term also recognizes their importance for participants and the roles of those local ethnic minority communities in the wider community (ibid). However, Martin and his colleagues argued that community languages had been ignored in the vision of cultural life that the city of Leicester has for its inhabitants. As a result, complementary schools remain relatively unexamined with respect to the interaction, learning, and identity formation processes (ibid). They further argued that, at a national level, there is a similar absence of detailed information about complementary schools. They pointed out that there is remarkably little detailed information about complementary schools, community languages, and their educational agendas (ibid).

Martin and his colleagues (2003) examined the issue through two separate phases of studies. Phase one consisted of a quantitative survey. In phase two, they conducted ethnographic case studies of two Gujarati complementary schools. School A had about 90 students, and school B had about 200 students registered. Through interview, observation, and parent questionnaires, this phase aimed to determine how these schools develop their educational pedagogies and classroom practices.

Three points were stressed in their results. First, the way in which bilingualism and bilingual teaching/learning were managed in these two schools differed from that of mainstream schools. Bilingualism is not part of the mainstream educational agenda, but Martin and his colleagues found that, in complementary schools, two languages occurred side by side in an unproblematic and uncontested way (Martin et al. 2003, p.7). Secondly, the most common external contacts were between the schools and community centers, the Local Education Authority and places of worship, and both schools had established a fundamental link with the mainstream sector in that they used mainstream school or FE college buildings for their lessons (Martin et al. 2003, p. 9). Third, children projected a degree of ambiguity about “cultures” and “ethnicities” – they valued the flexibility required for moving between languages and cultures, and expressed the importance of being multicultural and bilingual, recognizing that this required a significant level of sophistication (Martin et al. 2003,

p.10).

### **3.4.3 *Barradas' Study (2004)***

Barradas (2004) conducted an exploratory study with regard to patterns of participation in community language classes and patterns of educational achievement among Portuguese students in five London secondary schools with a high population of students from this community. She reported an important result that shows the effect of academic work conducted in the children's mother tongue: Portuguese students who attended mother tongue classes were five times more likely to obtain five or more GCSEs of grades A plus to C than those who had not attended.

### **3.4.4 *W. Li's Study (2006)***

W. Li (2006) argued that complementary schools had attracted little attention from researchers despite complementary schools in the UK having represented an important socio-political and educational movement in the country for nearly half a century, and despite their impact on the lives of thousands of students of varying ethnicities, or the debates they had provoked in regard to government involvement in education, or their implicit challenge to the dominant ideology of uniculturalism (p. 76).

W. Li (2006) outlined the social-political histories of complementary schools in the UK. He pointed out that these consisted of three broad groups of complementary schools for immigrant and ethnic minority children:

- 1) During the late 1960s Afro-Caribbean families, unhappy with lack of coverage of their cultural heritage in mainstream education, began developing community schools to serve their needs (p. 76);
- 2) During the late 1970s and early 1980s, Muslim communities of South Asian [W. Li did not specify what countries that "South Asian" referred to] and African origins began instituting separate religious schools for their children. In this way they hoped to shelter their children from what they saw as antagonistic pressures posed either by a Christian or a secular ethos such as

were common in mainstream schools (p. 77);

- 3) About the same time, a variety of immigrant communities – Chinese, Turkish, Greek and so on – began to establish community schools with the aim of maintaining their language and cultural heritage. Unlike the African and Muslim schools, these were set up as weekend schools and offered training that was complementary, rather than competitive with, that offered in state schools. Typically classes in community languages and cultures were offered after class or on weekends. Schools organized on this model outnumber all other separate schools – such as the Afro-Caribbean and Muslim schools – combined (p. 78).

W. Li (2006) pointed out that there was one common feature among the three broad types of complementary schools, despite the fact that they were set up differently. He noted that these schools were established in response to the failure of the mainstream education system to meet the needs of the ethnic minority children and their communities, the latter often being deliberately ignored by various UK governments. Having been marginalized, these complementary schools were seen as a minority concern and the ethnic minority communities left to deal with the matter themselves (p. 78).

#### **3.4.5 C. Wu's Study (2006)**

In addition to reviewing the situation of learning Chinese as a community language<sup>28</sup>, C. Wu's Study (2006): *Language Choices and the Culture of Learning in UK Chinese Classrooms*, focused on the "culture of learning" in Chinese complementary schools. The researcher used data collected through multiple research methods from Chinese community schools in Britain (p. 62). He outlined seven points that, together, provide a general picture of the situation in British Chinese community schools:

- 1) Although most Chinese schools are located around the London area, there are some Chinese schools in every region;
- 2) Most of the schools hold classes on Sunday;
- 3) Most schools run Cantonese classes-with or without Mandarin Chinese

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<sup>28</sup> For detailed information of current situation of learning Chinese in the UK, please refer to Chapter 4.

classes;

- 4) Almost all the schools use the UKFCS<sup>29</sup> textbook;
- 5) Only 10 schools have their own premises; others rent their premises for teaching – mostly primary or secondary schools in the local area;
- 6) Student numbers in these schools range from 21 to 160; teacher numbers range between 4 and 14;
- 7) Most schools have difficulty finding financial resources.

(C. Wu 2006, p. 63)

He pointed out these schools shared same problems, such as: lack of funding, inadequate classroom facilities and teaching aids, high turn-over rate of teaching staff, wide age differences within the same class, and the absence of a standard syllabus and teaching resources (p. 65).

#### **3.4.6 Anderson's Study (2008a, 2008b)**

Anderson (2008a) observed that at least 35 community languages are taught in mainstream secondary schools in England, Wales, and Scotland, either as part of the core curriculum (i.e. during the school day) or as part of the enhanced curriculum (i.e. on school premises, after school hours). In addition, at least 61 languages are taught in community-based complementary schools to children of school age, mainly in the 5 – 14 range (p. 80). He noticed that the situation of teaching Chinese is changing rapidly because of the emergence of China as a major economic power. As a growing number of students start to study Mandarin from scratch, a question immediately emerges, namely, whether the GCSE examination in Chinese, typically taken by students with a background in the language, is appropriate for non-background learners (ibid). Anderson argued that it is essential to define an appropriate pedagogical approach that takes into account the bilingual and bicultural backgrounds of the majority of learners studying these languages. He pointed out that this has undermined the development of community/heritage language teaching in the UK over recent decades (p. 79). Drawing on recent research on SLA, bilingual development and communicative language teaching, and general pedagogical

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<sup>29</sup> Please see Section 4.3 for the information on UKFCS.

theories as well, Anderson explored pedagogical approaches to working with learners who have a background in the language they are studying. This, he emphasized, was a much more integrated and inclusive approach to second language learning (ibid).

Based on semi-structured interviews, Anderson (2008b) investigated five students who had completed initial teacher education courses at Goldsmiths College, and are now working in London schools, to seek to provide a clearer understanding of the pre- and in-service professional development needs of teachers of community languages and how these needs can best be met. His study supported the view that, pedagogically speaking, an interactive teaching style and a modified “second language” teaching approach, as opposed to a mother-tongue approach, is preferable for most learners (Anderson 2008b, p. 283).

Anderson (2008b) reported that there are issues at a number of levels. Firstly, there is a lack of clarity about where community languages should fit into the curriculum, both in relation to the teaching of other languages and to other subject areas. Secondly, there is uncertainty about what pedagogical approaches are the most appropriate, given the range of students involved and the need to fit into curriculum and examination frameworks intended for the foreign language learner. Thirdly, there is a serious lack of resources suitable for learners in this country. Fourthly, opportunities for teachers of community languages to engage in pre- and in-service professional development have been limited and this has affected promotion prospects as well as general morale (ibid). Anderson argues that while the various minority language communities in the UK share much in common, there are also some important differences. He reported that Chinese was taught almost exclusively in the complementary sector to children of Chinese background. However the growing political and economic influence of China has led the British government to encourage schools to offer Mandarin to students from non-user backgrounds, alongside other languages. The take-up in recent years, particularly in the independent sector and in the specialist language colleges, has been considerable (p. 285).



The findings in Anderson's study (2008b) indicate that teachers of community languages need pre- and in-service professional development, both in theory and practice, in order to perform their pedagogical tasks effectively (p. 295).

#### **3.4.7 *Mau et al.'s Study (2009)***

Drawing on ethnographically informed observations and interviews with 60 pupils, 21 teachers, and 24 parents in association with six Chinese schools, Mau, Francis, and Archer (2009) investigated: what are Chinese schools like, who attends them, and what is taught there? They observed that, despite the fact that Chinese complementary schooling enjoys a long history in the UK, their practices and functions have been little documented by researchers, yet Chinese complementary schools are positioned to assume a pivotal role in the transmission of the Chinese language and culture (p. 17). They observed that most of the complementary Chinese schools in the UK are Cantonese-based Chinese schools, although some do provide a Mandarin curriculum. These, however, tend to be newer and less developed. All the Chinese complementary schools share certain features in common:

- 1) They are volunteer based, with little or no government funding-yet efficiently managed;
- 2) Pupils are grouped according to ability, not age, with pupils of varied ages in the same classroom;
- 3) Chinese language classes form the core component of these schools;
- 4) All provide some extra-curricular activities related to Chinese culture for pupils and, sometimes, for parents as well;
- 5) The curriculum is mainly delivered in Chinese although English can be used;
- 6) Traditional, didactic teaching methods are employed, but some interactive methods also may be used;
- 7) Most of the teaching staff had not received formal teacher education or training, either in the UK or abroad;
- 8) All schools participate in activities organized by their local Chinese communities, and sometimes the greater non-Chinese community;

- 9) Staff at all the schools felt that the future development of their schools was hindered by issues of funding, resources, facilities, staffing, and the relatively scarce amount of time available for teaching.

(Mau et al. 2009, p.20 – 21)

#### **3.4.8 Francis et al.'s Study (2009)**

Francis, Archer, and Mau (2009) observed that, in the UK, the majority of Chinese complementary schools focus principally on teaching Cantonese rather than Mandarin Chinese. As these schools are “mother-tongue” institutions, their sole purpose is to perpetuate the Chinese spoken and written language in younger generations, although many provide additional and optional lessons in skills that signify “Chinese culture”, e.g. calligraphy, Chinese dance, Kung Fu, and so on (p. 520). They found that the overwhelming majority of British-Chinese pupils attending complementary schools see the purpose of these schools as perpetuating proficiency in the Chinese language (Francis et al. 2009, p. 533).

#### **3.4.9 McPake and Sachdev's Report (2008)**

Jointly conducted by the Scottish Centre for Information on Language Teaching and Research (Scottish CILT) at the University of Stirling, and the SOAS-UCL Center for Excellence for Teaching and Learning “Languages of the Wider World” (LWW CETL), leading by McPake and Sachdev in 2008, the study “Community Languages in Higher Education: Towards Realizing the Potential” aimed to map provision for community languages in higher education in England and to consider how it can be developed to meet the growing demand for more extensive provision for these languages (McPake and Sachdev 2008, p. 5). The study was conducted through a variety of means, such as: a review of the sources of national statistics; a desk-based survey of provision levels at each higher education institution via website; a series of interviews with representatives of selected HEI providers, and questionnaires; and focus group discussions (McPake and Sachdev 2008, p. 6).

McPake and Sachdev (2008) distinguished community language learning from foreign language learning on the basis of the learner's opportunities to learn the language in question in informal circumstances: in the home; in the community; as a result of time spent living in another country; before beginning formal study; at school or subsequently (p. 5). This study recognized that community language learners often have a wider range of goals than foreign language learners. In addition to using community languages to enhance prospects for international careers, or for cultural engagement, community language learners might also be concerned with developing identities or planning careers with communities who speak the same language (ibid).

The study reported that the history of community languages in England began in 1960s, when policy-makers and education providers first recognized the implications of the fact that immigration from Asia and the Caribbean has largely been one of discrimination and assimilation. In England some 300 community languages are in use, yet little attention has been paid to maintaining or developing community languages. The study also revealed that most recent work on community language learning has focused on provisions for children of school age. This report was the first UK study of provisions for community languages in higher education (McPake and Sachdev 2008, p. 5).

Furthermore, McPake and Sachdev (2008) reported that:

- 1) Eighty-one languages are offered as courses in English universities. Most of these courses are designed for FL learners. Speakers of community languages, whose language learning typically has been unsystematic and diverse, are often discouraged from taking these classes and, even if they do, these courses rarely address their special needs. Some modular courses have been designed for community language learners at institutions such as Imperial College, King's College and SOAS, but these are very few (p. 6);
- 2) According to their report, community language students may choose to continue language study at a higher level for any of three reasons: enhanced career and business opportunities; furthering intellectual ambitions; and

enabling learners who have had limited opportunities for academic success to gain recognition for an area in which they have achieved a high level of competence. The degree to which such study should be encouraged remains controversial among higher education institutions, however. Some see a potential for enhancing a school's international profile, while others see limited demand. Some also fear that making special provision for community learners could expose them to charges of social bias (p. 7);

- 3) Because higher education institutions have little experience teaching community languages, it is difficult to establish goals and standards for such teaching, and so recruiting and assessing teaching staff and resources is also difficult (ibid);
- 4) Despite these obstacles, the report identified several reasons why it is necessary to support higher education so that community languages can be raised to a professional level. For one, such training would support businesses and services targeting minority ethnic communities. It would also support social and cultural initiatives within and beyond these communities, all of which would contribute substantially to an increasingly multilingual UK (p. 8).

In addition to these findings, McPake and Sachdev (2008) proposed a broader vision of language learning that encompasses the interests of community and foreign language learners. In view of this, they (2008) recommended:

- 1) improving provision for community language learning in higher education;
- 2) initiating a series of awareness raising activities among providers, among policy-makers, and among linguistic communities, to draw attention to the benefits that could accrue from investment in community languages;
- 3) extensive reform of current provision for community languages in higher education, in terms of degree level provision, modular provision and provision for professional education for teachers and public service interpreters;
- 4) the main national policy-making bodies with responsibility for languages within HEIs adopt the broader vision for languages set out in this report so as

to ensure that community languages should be systematically included in the development of rationales for provision, and in any strategic decisions that ensue. Further research, both policy-related and academic, would be required to support this work.

(McPake and Sachdev 2008, p. 8 – 9)

Thus while, in some sense, there has been research into heritage language in the UK, it has been concerned mostly complementary school level Chinese for children, not the learning of HLs by universities and mainstream senior high schools. Moreover, much of the research has been concerned with demographic factors and school structures rather than with the students' attitudes, motivations, and their learning strategies. This study investigates these issues with the hope of advancing understanding of adult and young adult heritage and non-heritage Chinese students at these settings.

### **Summary**

In this chapter, we have reviewed research on Heritage Language Acquisition in general, as well as specifically considering Chinese as a heritage language. In addition, we have looked at heritage language study in the UK. In the next chapter, we will review the situation of teaching and learning Chinese in the UK. We will look at the current state of teaching and learning Chinese in the UK, including teaching and learning Chinese as a foreign language, and teaching and learning Chinese as a heritage language in the UK, followed by an outline of some of its special features.

## **Chapter 4: Overview of Teaching and Learning Chinese in the UK**

In the previous chapter, we reviewed the relevant literature on heritage language learning. In this chapter we provide an overview of teaching and learning Chinese in the UK. Considering this current study is a comparison of heritage and non-heritage Chinese learners' learning strategies in studying Chinese, it is worthwhile to provide background information with regard to the current state of teaching and learning Chinese as a foreign language in the UK, for this information is related to non-heritage Chinese students. Also of interest is the current state of teaching and learning Chinese as a heritage language in the UK, as this relates to heritage Chinese students. We are also interested in the special characteristics of teaching and learning Chinese in the UK as this is related to teaching Chinese as a language. These three areas of information make up the content of this chapter.

### **4.1 The Current State of Teaching and Learning Chinese as a Foreign Language in the UK**

In April 2007, the Secretary of State for Education decreed that schools would have more freedom to teach “more economically useful languages such as Mandarin” rather than traditional European languages. “Young people need to be aware that languages can make you attractive to employers and more employable”, the Secretary said: “we need to raise our game in languages in schools if we are to compete in an increasingly globalized economy” (Times 2007b).

Realizing the importance of Chinese and other non-European languages in the global economy, the Department for Education and Skills – DfES (2002), launched the Government's languages strategy for England “Languages for All: Languages for Life” program, on 18<sup>th</sup>, December, 2002. The aim was to transform the country's linguistic capabilities. The program adopts initiatives for bringing about significant change in foreign language competence in England. The initiatives are designed to motivate students to learn language, in part by enriching opportunities for language

learning both within and outside the curriculum. The English government was determined to see to it that languages assume a significant place within the nation's social, economic, and political agendas (DfES 2002).

The document revealed that this strategy will have two main components: motivating individuals to learn language; ensuring for the provision of high quality and appropriate opportunities. The aim is to make language learning both relevant and available to people of all social origins: all ages and all genders, as well as students in both mainstream and special schools (DfES 2002, p. 7).

In order to promote the learning of Chinese, a strategically important language recognized as a major world language and an increasingly important business language, the British Council operates the educational co-operation program with China. The purpose of this cooperation is to promote Mandarin and English languages in the relevant countries. The program includes Mandarin immersion courses, the exchange of language assistants, joint school projects, and reciprocal visits. In coming years it is expected that this program will result in an increase in numbers of language assistants as well as students enrolled in Mandarin immersion courses.

Increasing numbers of schools and colleges in the UK now offer Chinese languages (DfES 2002). In addition, Confucius Institutes have also been set up at higher education institutions such as: School of Oriental and African Studies, University of London, University of Edinburgh, University of Cardiff, University of Manchester and University of Sheffield. The first Confucius Business Institute in the world was founded at London School of Economics and Political Science. In addition, more colleges and schools have put Chinese on the curriculum, and some even make it a compulsory course.

A report on: *Chinese Studies in UK Schools*, from BACS (2003), pointed out that (1) Mandarin was seriously taught in only 8 or 9 schools; (2) there was no provision for qualified teacher training; (3) the DfES Language for All Strategy might limit the

development of Mandarin teaching; and (4) Chinese still lacked status as a modern foreign language in England (p. 19). In addition, it observed that the study of China in most schools was minimal, with China all but invisible in school textbooks and in the National Curriculum. It concluded that the lack of staffing and expertise was the chief constraint on furthering the study of China. Another challenge noted was that China did not fit easily into some key areas of the curriculum, a problem compounded by lack of awareness and expertise, as well as limited exam coverage and a scarcity of teaching materials (BACS 2003, p. 24).

However, Mandarin Chinese teaching has been undergoing positive change despite these challenges. According to BACS' report (2005), there have been several positive developments over recent years, such as:

- The ALL and SST Chinese Language Strategy Group, energized the Mandarin Teachers' Network with its well-attended teacher training workshops.
- the establishment of new PGCE programs in Mandarin at Goldsmiths, Sheffield and Exeter
- The DfES and HSBC funded British Council Schools Links program
- The Manchester-based Chinese Arts Centre/Arts Council activities
- Kingsford Community School (primary), teaching Chinese to all its 600+ students
- Small-scale initiatives by the Scotland China Association, the Geography Association and one or two private curriculum content providers

The BACS Briefing (2005) suggested the study of China and its language is still not being addressed in most areas of the curriculum, and much still needs to be done to expand Chinese studies throughout the schools system. It advocated cooperation in, for example: developmental and promotional work to increase the uptake of Chinese studies and to improve academic standards; human capacity development to support an expansion in Chinese studies both in terms of teacher training as well as the development of expertise within the educational infrastructure; the development of teaching materials across the schools' curricula; and a structure of advisory support.



According to the *Times* online news (Times 2007a), the first school in the country to make Mandarin compulsory for all pupils was Brighton College. It is believed to be crucial that students learn the language and culture of ‘the emerging giant in the East’, as ‘the world doesn’t come to us anymore; we have to go to the world’ (Times 2007b). All this is implemented because it is believed that the consequences of failing to embrace Mandarin will be severe. Dr Anthony Seldon, the biographer of Tony Blair, claims: ‘we are trying to prepare people for the world they are going to live in. It is going to be more difficult for us to compete. Those individuals who are able to converse in the Chinese language will have enhanced job opportunities. Those countries that hide away will go into decline more rapidly’ (Times 2007b). Seldon reveals there is no shortage of Chinese teachers, but quality is important. He says the long- term plan must be for 20 percent of a hugely expanded number of Mandarin graduates in Britain to become teachers (Times 2007b).

At the university level, there are 23 universities currently supporting Chinese studies. For instance, Oxford, Cambridge, Edinburgh, Leeds, Sheffield, and School of Oriental and African Studies all offer full undergraduate and postgraduate degrees in Chinese Studies. Other universities, such as: Nottingham University offers single and joint honors undergraduate degrees in Chinese, and postgraduate supervision. In addition, Chinese can also be studied as part of the undergraduate or postgraduate degree at the University of Birmingham, Newcastle upon Tyne, Bristol, Lancaster, and London School of Economics.

Wang and Higgins (2008) pointed out that the impetus for the expansion of Mandarin teaching came from three main directions. First, in 1999, the Higher Education Funding Council for England (HEFCE) published a review of Chinese studies and concluded that the UK was lagging behind other European countries in expanding Chinese studies (HEFCE, 2005). Responding to this, the UK government provided over one million pounds to strengthen Chinese studies and Chinese language teaching as a national strategic need (p. 92).

Secondly, they observed the Chinese government has a mission to increase the number of non-Chinese Mandarin speakers in the world. The National Office for Teaching Chinese as a Foreign Language – Hanban provides resources related to Chinese language and culture to meet the needs of Chinese language learners abroad. Hanban has so far set up 13 Confucius Institutes and 12 Confucius Classrooms in the UK, including four in London. Hanban also contributes some funding to support the Specialist Schools and Academies Trust (SSAT) Confucius Institute, the first in the world specifically designed to provide networking and support for schools (Wang and Higgins 2008, p. 92).

Thirdly, in view of China's growing influence economically and otherwise, many in the British business community recognize the importance of training persons to be competent in the Chinese language so as to meet their business needs (Wang and Higgins 2008, p. 92).

#### **4.2 The Current State of Teaching and Learning Chinese as a Heritage Language in the UK**

Members of minority ethnic groups within the UK may wish to learn the language of that group for practical reasons, for example, to speak to their grandparents. Many, however, wish to search for their cultural roots through language. Language classes ranging from Polish to Greek aimed at teaching such learners can be found in most British cities, such as London (V. J. Cook 2009a, p. 62). It is interesting that the Confucius Institutes, aimed at spreading knowledge of Chinese language in countries where Chinese is not normally spoken, have discovered that many of their students are ethnic Chinese wanting to learn Mandarin. V. J. Cook (2009a) observes that, in such cases, the language is learnt principally as a way of identifying with a particular national group, which is to say, as an identity language (p. 62).

Chinese as a heritage language is mostly taught at weekend Chinese community schools. Founded in 1993, UKAPCE – UK Association of the Promotion of Chinese Education reported that currently there are over 130 weekend Chinese schools, 1,500 Chinese teachers, and 25,000 heritage Chinese students. Another charity

organization, UK Federation of Chinese Schools (UKFCS, founded in 1994) reported that they have about 110 such schools registered as their members, representing over 13,000 pupils. Its membership, moreover, continues to increase.

Both organizations, UKAPCE and UKFCS, are charities that aim to promote Chinese language education and Chinese culture through their member schools.

They serve Chinese schools as well as the wider community with:

- specialized information services;
- publications;
- professional support;
- training and networking opportunities

UKAPCE and UKFCS publish and distribute UK Chinese textbooks and other teaching materials to their members and also organize teachers' training conferences annually. They support initiatives promoting the teaching of Chinese in the UK, ensuring that community teachers are kept up-to-date with developments in mainstream education. Besides educational work, the two charities are active in providing recreational and cultural activities for their members. Every year, they organize cultural performance shows, as well as competitions in Chinese chess, Chinese calligraphy, essay writing, poster and card designs, and table tennis tournaments. Through fund-raising events, UKAPCE and UKFCS fund their cultural activities, and subsidize textbooks and teacher training conferences.

In addition to weekend Chinese community/complementary schools who provide Mandarin Chinese language teaching to heritage Chinese students especially those at a young age<sup>30</sup>, there are a few higher education institutions providing Chinese language teaching to heritage Chinese students as separated courses. These institutions mainly include Imperial College of London, Warwick University, SOAS, and Kings College (CILT 2008). Other HEI, such as Newcastle University and Regents College, mostly mix Heritage Chinese students with non-heritage Chinese

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<sup>30</sup> The current researcher, who taught at a Chinese weekend schools in Newcastle from Feb, 2006 to Sep, 2007, observed that the heritage Chinese students ranged from 4 years old to 15 years old, although there was no special age restriction.

students in the same class. Both types of institutions have undergone similar problems, for example, tests are bit easy, and the study loads are a bit light (Chen and Che 2009).

Consider Warwick University as an example: it offers 30 credit and 24 credit Mandarin modules for students with native or near-native speaking competence of Cantonese, along with some ability to read and write in traditional characters. The aim is to provide students with opportunities to learn correct Mandarin pronunciation and certain areas of grammar and vocabulary, so that they can develop their listening and speaking skills, as well as improve their competence in reading and writing simplified characters. These modules are assessed by means of three written exams and one oral test. Both teachers and students felt that the study load for these modules was too light for the students (ibid). The teachers reported that heritage students tend to take these modules so as to get high scores without spending much time on the class, leaving more time for working on other modules. The teachers also felt that 24 or 30 credits were too much credit for language modules. They felt an urgent need to revise course structure so as to suit both CFL and CHL's learning requirements. However, at the same time, they acknowledged this would be difficult because of the multiple interests involved. Policy makers would be involved, for instance, and further, there is a need to understand more about the different groups of students, especially Chinese as heritage students (ibid).

### **4. 3 Special Features of Teaching and Learning Chinese in the UK**

#### **4.3.1 Chinese and Chinese Dialects**

As noted earlier in Section 1.4, 'Chinese' is an umbrella term that subsumes numerous dialects. These dialects or *Fangyan*, are categorized based on geographical and linguistic-structural characteristics (W. Li 1994). These are Wu, Xiang, Gan, Min, Yue (Cantonese), Kejia (Hakka), and Mandarin (Comanaru and Noels 2009; He 2006, p. 3; W. Li 1994; Wiley et al. 2008; Wiley 2009; Xiao 2009; Yuan 2001).

Mandarin, the official dialect family, is the major variety that is also recognized as the *Putonghua*, or common language. As can be seen from Figure 4.1, the

distributions of the dialects are:

- 1) Mandarin (or *Beifang* ) spoken in most of China; the native language of more than 70% of the Chinese population;
  - 2) *Yue*, the majority whose speakers are in Guangdong province, the southernmost Mainland province of China;
  - 3) *Kejia* (or Hakka), whose speakers came from small agricultural areas and are now scattered throughout southeastern China;
  - 4) *Min*, spoken in Fujian (the mainland province on the western side of the Taiwan Strait), Taiwan and the Hainan Islands. It is often further distinguished into Northern Min and Southern Min;
  - 5) *Wu*, spoken in the lower Changjiang (the Yangtze River) region, including urban, metropolitan centers such as Shanghai;
  - 6) *Xiang*, mainly spoken in south central region;
  - 7) *Gan*, spoken chiefly in the southeastern inland provinces
- (W. Li 1994, p. 40)

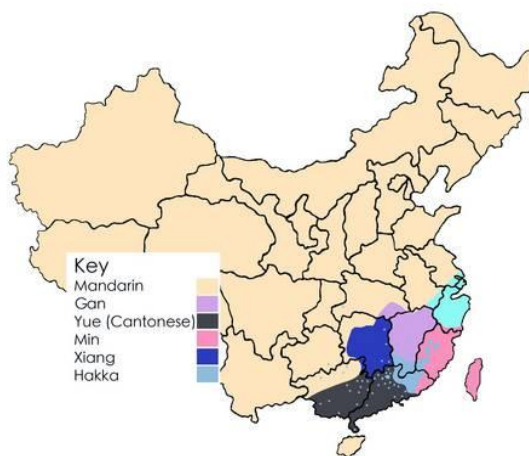


Figure 4.1: Major Dialect Regions of China (Pierre<sup>31</sup>, 2007)

One can identify subvarieties within each of the seven major *Fangyan* (Wiley 2008; Wiley et al. 2009). Currently, there are 56 officially recognized ethnic groups in mainland China, speaking at least 61 indigenous languages that belong to the above seven dialects family (ibid.). Although linguists typically make finer distinctions among these seven *Fangyan*/dialects by using phonological and grammatical criteria,

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<sup>31</sup> This Figure designed by Pierre includes only six major dialects family without the dialect *Wu*.

they are recognized by custom (Wiley 2008, p. 69). The major dialects' unintelligibility among each other "is often regarded by the Chinese as a social group boundary marker distinguishing people of different origins" (W. Li 1994, p. 40).

#### ***4.3.2 Unique Tonal and Writing System***

Mandarin pronunciation varies regionally in a manner common to spoken varieties of other major languages. Pronunciation that differs noticeably from standard Mandarin tends to be perceived as a regional "accent". The government in China has adopted various measures over the past sixty years to promote standard pronunciation nationwide. For example, pinyin was developed to provide a phonetic spelling system using the Roman alphabet. The aim was not only to help foreign speakers learning the language, but also to encourage speakers of other Chinese dialects to learn standard Mandarin pronunciation (Wei 1994).

Many features of Mandarin Chinese are different from those of English and other Indo-European languages. Whereas there are several thousand possible syllables in English, there are only 420 different syllables in Mandarin, including the four tones. Most sounds may have many different meanings, making it difficult for non-native speakers to distinguish words, as many words sound the same. Of the three ancient writing systems (Egyptian logographs, Sumerian cuneiform, and Chinese characters), Chinese character writing is the only one still in use. Many foreign language students of Mandarin Chinese find these features challenging, even though there are no articles, tenses, moods, plurals, agreements, declensions or conjugations in Chinese for them to learn (Wang and Higgins 2008).

As we know, many grammatical and phonological conventions and structures need to be mastered in learning any new language, and Chinese is no exception. One of the most important conventions for studying this language is the spoken "tones". Each syllable in Mandarin Chinese carries one of five possible tones; above each syllable, diacritical marks appear in the written form of Pinyin to indicate its pronunciation. The shape of each diacritical mark indicates the tone's pitch, modulation, and duration (Bolduc 1997).

The recognition and pronunciation of tone is vital as it determines meaning. Therefore students must memorize the correct pronunciation. Bolduc (1997) pointed out that, in addition to cognitive demands, physical muscle development is required to execute proper pronunciation for the unique sound combinations. It is one of the most difficult concepts for teachers to get across, and for students to acquire.

Another prominent element in Chinese languages is the written form of the pictographic/ideographic Chinese characters, which is fundamentally different from that of languages that use alphabets. Chinese characters emerged possibly 10,000 years ago, as pictures representing objects and ideas rather than sounds as in alphabetic representation (Higgins and Sheldon 2001). Pictographs gradually evolved into ideographic characters that could express abstract ideas. A standard script was developed between AD 221 to and AD 580, and this formed the basis for the “complex form”, or modern version of written Chinese (Higgins and Sheldon 2001). In the 1950s, the Government of the People’s Republic of China decided to streamline the characters and so produced simplified forms for Chinese characters. These characters are composed of a series of eight possible strokes that have no equivalent in the Roman alphabet. Each Chinese character is monosyllabic. Because of these differences, according to some scholars, the ability to read and write Chinese characters can be challenging for non-native speakers (ibid).

#### ***4.3.3 Diversity of Student Population***

The student population studying Chinese language is highly diversified. As BACS (2003, p. 26) reported, while Chinese language learning and teaching have experienced a definite increase over the last three or four years, provision for language teaching overall has been low-key and lacking organizational coherence. Much of it is either for heritage speakers of Mandarin Chinese or merely a superficial “add-on”.

The state of Chinese language teaching in the UK since 2000 has been described by Song (2005). He reported that, at secondary and primary levels, weekend or independent schools are the major sources providing Chinese language teaching, rather than mainstream schools. However, according to a recent report from The National Centre for Languages – CILT (CILT 2007), specialist language colleges, high-achieving schools, and independent schools were now more likely to teach Mandarin than other schools. CILT (2007) estimated that between 400 and 500 secondary schools in England were offering Mandarin Chinese. CILT (2007) also reported that prior to commencing their studies, UK-domiciled students constituted the majority of students taking Chinese studies at HE, but the situation changes at the postgraduate level, where just over half of all students came from China, Taiwan and the US. The gender split was fairly even.

#### ***4.3.4 Variety of Textbooks and Resources***

Because Teaching Chinese as a foreign language is a relatively new discipline, research in this area, including material development, is meager. Consequently, most materials that were developed in Mainland China, Hong Kong, and Taiwan, lack an adequate understanding of the overseas CFL teaching and learning situation. Major gaps exist regarding the students' learning challenges, from the format to contents. Many emphasize the functions of words, while neglecting language's communicative function. These materials typically lack consistency, and practicability, as well as any concern for maintaining student interest.

#### ***4.3.5 Constraints on Teaching Chinese in the UK***

There is a voice among current researchers and government officials (BACS 2005; CILT 2007; Zhang 2008), that the most commonly noted constraint teachers encounter in offering Mandarin in the school was curriculum time, followed by the perceived difficulty of Mandarin for pupils and students compared to European languages. Major concerns among schools and universities offering Mandarin include: the availability of suitable teaching and support resources, acute shortage of



experienced and qualified teachers, the absence of any in-service training or opportunities for professional development, lack of appropriate syllabus and attainable examinations, and accreditation (CILT 2007; Zhang 2008). Many schools also are concerned about how to ensure that the learning and teaching of Chinese can be sustained rather than merely constituting a fashionable trend (Zhang 2008).

Practitioners feel that provision for the training of teachers of Chinese is urgently needed (Zhang 2008). Zhang (2008, p. 5) suggested that the British school system needs to rely on its own teachers in order to achieve a sustainable development, although Hanban provides support in sending teachers from China on a yearly basis. The most important reason for this is that teachers from China find it hard to adapt to teaching practices in UK schools in a short period of time. At 2009 SSAT Chinese Conference, George Zhang, the Director of the London Confucius Institute, pointed out that most Chinese teachers working in this country are native speakers and only work part-time; not more than 1/5 are qualified; and more than a few have no formal training and no experience in teaching Chinese. He therefore advocated that the British government should put teacher training on the agenda<sup>32</sup>.

In addition, syllabi, teaching approaches and assessment are largely based on European languages and so fail to provide any commonly recognized framework for Chinese – they tend to be varied and lack focus. There is also no common standard for attainment (syllabus) and assessment for Chinese. Li and Zhang (2008) proposed a common standard framework for Chinese with reference to CEFR (the Council of Europe's Common European Framework of Reference for Languages).

Aiming to produce a framework of standards in line with CEFR and meeting the needs of learning and teaching Chinese in the European context, the European

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<sup>32</sup> We are very pleased that by the time of our completion of the current study, there are more Chinese teachers training opportunity, including short courses and PGCE programme available. For example, the Institute of Education (IOE), London University will be starting a PGCE for teachers of Mandarin Chinese from September 2011. In addition, at the most recent BCLTS annual conference (held in 29<sup>th</sup> June to 1<sup>st</sup> July, 2011 in Edinburgh), Carruthers – SSAT Confucius Institute Director, informed that SSAT and Hanban signed an agreement to secure an increasing in the number of qualified Mandarin teachers (1000 qualified teachers agreed) in the UK schools.

Benchmark Chinese Language Project (EBCL) team held its first seminar between the 20<sup>th</sup> and 21<sup>th</sup> May 2011 in La Sapienza, University of Rome (for more information, please refer to EBCL website). This project is hoped to be able to raise both learners' and professionals' awareness of the linguistic differences between Chinese and European languages and the diversity in the functionalities of the Chinese language in the European context.

#### ***4.3.6 Related Chinese Language Teaching Organizations***

In the UK, some organizations are devoted to conducting research on the learning and teaching of the Chinese language. The British Chinese Language Teaching Society – BCLTS, which was founded in 1997, is a key organization for Chinese language teachers for higher education institutions and other language teaching institutions in the UK. It aims to improve Chinese language teaching in the UK by exchanging teaching experiences and teaching materials. To achieve this goal, one workshop and one symposium are held annually. The number of members has increased from 36 in 1999 to 65 in 2009. The number of institutions represented is now 35, increasing from 10 in 1999.

At the secondary and primary levels, the main organizations are Specialist Schools and Academic Trust, known as SSAT; the UK Association for the Promotion of Chinese Education – UKPACE; and the UK Federation of Chinese Schools – UKFCS. Both UKPACE and UKFCS are charities that aim to promote Chinese language education and Chinese culture through member schools (we have mentioned these organizations in Section 4.2, to where one may refer for more information). SSAT Confucius Institute became the first schools-based Confucius Institute in the world. The SSAT Confucius Institute and Confucius Classrooms facilitate the teaching and learning of Mandarin Chinese and the study of China across the country, in partnership with Hanban and Peking University. SSAT runs a Chinese Conference every year, giving delegates of Mandarin Chinese teachers from across the country opportunities to network and gain new ideas to take back to the classroom.

As more universities and schools have introduced Chinese language into the curriculum, an increased diversity of Chinese language programs, teaching styles and learning strategies have emerged. The symposium and conferences organized by the above mentioned organizations provide unique opportunities to respond to the rapid developments of UK Chinese language teaching, with focuses on practical issues from both empirical and theoretical perspectives.

### **Summary**

In this chapter, we have looked at the current state of teaching and learning Chinese in the UK. We have looked at teaching Chinese as a foreign language as well as teaching Chinese as a heritage language in the UK. We have also examined some issues pertinent to teaching and learning Chinese in the UK. In the next chapter, we will turn our attention to the methodology issues in terms of how the current study was conducted.

## **Chapter 5: The Methodology of the Study**

The purpose of this study is to investigate Chinese heritage and non-heritage learners' learning strategies. This chapter is concerned with the methodology employed in this study. It begins with a review of research questions. Next it explains how the current study was conducted, including research design and methodology issues, such as participants, instruments, sampling and procedures, as well as data analysis. As usual, this chapter ends with a summary.

### **5.1 Research Questions and Hypotheses**

Based upon the literature reviewed in previous chapters, this study sought to answer the following research questions:

**Research Question 1: Are heritage Chinese students' perceptions of Chinese language learning strategy use different from those of non-heritage Chinese students?**

RQ1 was asked based on the issues raised in Section 2.3.2 and Section 3.2. The hypothesis was: "Heritage Chinese students' perceptions of Chinese language learning strategy use are different from those of non-heritage Chinese students".

**Research Question 2: Is the relationship between heritage students' proficiency level and their perceptions of LLS use different from that between non-heritage students' proficiency level and their perceptions of LLS use?**

RQ2 was asked based on the issues raised in Section 2.3.2 and Section 3.2.1. The hypothesis was "The relationship between heritage students' proficiency level and their perceptions of LLS use is different from that between non-heritage students' proficiency level and their perceptions of LLS use".

**Research Question 3: Is the relationship between heritage students' motivation<sup>33</sup> and their perception of LLS use different from that between non-heritage students' motivation and their perceptions of LLS use?**

RQ3 was asked based on the issues raised in Section 3.2.1 and Section 3.3. The hypothesis was "The relationship between heritage students' motivation and their perceptions of LLS use is different from that between non-heritage students' motivation and their perceptions of LLS use". As stated in Section 2.2.3, we looked at the CHL and NCHL students' motivations in terms of their intrinsic and extrinsic motivation.

**Research Question 4: Is the relationship between heritage students' language learning beliefs and their perceptions of LLS use different from that between non-heritage students' LLB and their perceptions of LLS use?**

RQ4 was based on the issues raised in Section 3.2.1 and Section 3.3. The hypothesis was "The relationship between heritage students' language learning beliefs and their perceptions of LLS use is different from that between non-heritage students' LLB and their perceptions of LLS use".

In addition, this study also sought to find answers for the other two research questions:

**Research Question 5: Do other variables such as students' gender, age, and mother tongue have the same effect on heritage and non-heritage Chinese students' perceptions of LLS use?**

This question was raised because literature has revealed that the variables of gender, age and mother tongue may have an impact on students' LLS use. For example, given that heritage Chinese students in the UK come from different language and dialect backgrounds, such as Cantonese, Hakka, and Mandarin etc., these CHL students may also have different perceptions on LLS use from one dialect group to another, such as Cantonese speakers, or Hakka speakers, or Mandarin speakers, therefore it is important to know whether the Chinese language variation (i.e.

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<sup>33</sup> In the current study, students' motivations were divided into two groups: intrinsic and extrinsic motivation. Please refer to Section 1.4 and Section 6.5.1 for information such as the definition.

between various Chinese “languages”, “dialects”, etc.) amongst Chinese heritage learners had any impacts on their perceptions of LLS use. The hypothesis was “Other variables, such as students’ gender, age and mother tongue have different effects on heritage and non-heritage Chinese students’ perceptions of LLS use”.

**Research Question 6: Is “proficiency level” a good predictor to predict heritage and non-heritage Chinese students’ perceptions of LLS use?**

The RQ6 was raised to detect whether the students’ perceptions of LLS use were simply due to their different proficiency levels. By answering this research question, we may also detect which variable could better predict the students’ perceptions of LLS use, and whether the predictor, if there were any, was the same or not between CHL and NCHL students. The hypothesis for this research question was: “Despite the possible impact of proficiency level on the students’ perceptions of LLS use, it is not necessary a good predictor of the students’ LLS use. Other variables, such as motivation, may also be good predictors of heritage and non-heritage Chinese students’ perceptions of LLS use.

In one word, we raised the above research questions in order to fully understand heritage and non-heritage Chinese students’ perceptions of LLS use, what differences or similarities were between the two groups, what impacts from other variables have upon their perceptions of LLS use, and what can best predict their perceptions of LLS use. By answering these research questions, we hope to gain a better understanding of these two groups’ students, so we, as Chinese language teachers, can help them to advance their study of the Chinese language.

## **5. 2 Research Design**

The current study aims to compare young adult heritage and non-heritage Chinese students learning strategies in studying Chinese at higher and secondary institutions in the UK. Based on the review of research methods in: L2 language learning beliefs (see Section 2.2.4), L2 learning strategies (see Section 2.1.3), learning strategies in studying Chinese as a Foreign/Second Language (see Section 2.3.1), and heritage

language study (see Section 3.2.1), a mixed-method was employed in order to answer the posed research questions, including both quantitative and qualitative research methods. Each method complements the other and provides a more detailed and more comprehensive picture. It included two stages: the informal pre-interviews and pilot study, and the main study.

### **5. 3 Informal Pre-Interviews and Pilot Study**

We began with the recognition that there is no guarantee that all instruments, including questionnaires and interviews, would function ideally in practice. Even though the schedules were planned carefully, and the questionnaires were adapted from widely used instruments, changes or additions and subtractions inevitably were made. For this reason it was necessary to conduct pilot testing to ensure the reliability of the scale and its sub-scales. Researchers, for example, Nunan (1992) suggest that a piloting phase should be undertaken for all research (p. 145).

In line with this, a pilot study was carried out from October 2007 to February, 2008. Before that, some informal pre-interviews with students from similar backgrounds were conducted to get a feel for the study about to be carried out. Students who were studying Mandarin Chinese at The Centre for Life-Long Learning, University of Sunderland, where the researcher was working as a Chinese language teacher, were invited to participate in the pre-informal interviews and the pilot study.

#### **5. 3.1 Informal Pre-Interviews**

In Sep, 2007, three students who were studying Mandarin Chinese at the Centre for Life-Long Learning at University of Sunderland were invited to participate in the informal pre-interviews. These students all speak Cantonese and have a Chinese background, one from Hong Kong, one from Guangdong, and the other from Malaysia. They were classified as Chinese Heritage language learners according to the definition adopted for the current study. The length of each interview varied from one hour to one and a half hours. The interviews were carried out in a relaxed atmosphere. The main questions that students were asked were, why they choose to

study Chinese, and how they study it. Through the informal pre-interviews, a framework of questionnaires for the pilot study was formulated.

### **5.3.2 Pilot Study**

The pilot study consisted of two parts: (1) a quantitative, 3-questionnaire study, which measured students' opinions on their Chinese language learning, after which these opinions were quantified for statistical analysis; (2) a qualitative semi-structured interview study, in which students articulated verbally their views on Chinese language learning, after which detailed views were reported and analyzed in detail.

The quantitative part was made up of six parts: 1) a consent form; 2) a background questionnaire; 3) the BALLI (Belief about Language Learning Inventory) and BALLI Plus questionnaire; 4) the SILL questionnaire (Strategy Inventory for Language Learning – version 5.1); 5) Comment and Advice on the Study; and 6) Final Remarks (please see the Appendix A for detailed information on the questionnaires used for the pilot study).

#### **The Consent Forms**

The consent forms ensure confidentiality for the participants, and guarantee that this research project will not harm participants in any way. Detailed information can be obtained from Appendix A.

#### **Background Questionnaire**

The background information questionnaire was adapted from some previous studies, such as: Oxford (1990) and Le (2005). It consists of 26 questions and two open questions. In addition to basic demographic information, the questionnaire asked about participants' native language, what language they speak at home and at school; where and how long they have studied Chinese; how many hours they study in and outside of class; methods they have used in studying Mandarin Chinese; reasons for



studying Chinese; and their self-perceived Chinese language proficiency level, compared with native speakers.

### **Beliefs Questionnaire**

Horwitz (1987) defined the term “Belief” as “Students’ preconceived ideas about language learning” (p. 119). The questionnaire used in Part C in the pilot study survey is named: *What I believe about language learning*. It was adopted and adapted from Horwitz’s Belief about Language Learning Inventory – BALLI (1987).

For the purposes of the current study, only minor modification of the BALLI was made. Some of the original items were technically modified for the Chinese learning situation and to suit the purposes of the current study. For example, Item seven: “It is important to speak English with excellent pronunciation”, our study substituted “It is important to speak Chinese with excellent pronunciation” instead. Besides, eight additional items were specially created to assess certain characteristics of the Chinese language and the situation of studying Chinese in the UK. This part of the questionnaire was used to investigate students’ beliefs about specific features of Chinese language learning and teaching, such as:

- “Students should start with Roman letters (pinyin) when they begin to learn Chinese”;
- “Chinese characters should be introduced as early as possible”;
- “I believe that the pronunciation of Chinese is the most difficult part of learning Chinese”;
- “I believe that learning Chinese characters is the most difficult part of learning Chinese”; and
- “Compared with Chinese language class, learning Chinese in Chinese society is more important and useful”.

### **The Strategies Questionnaire**

The questionnaire in Part D is: *How do I learn Mandarin Chinese*. This was adapted and adopted from Oxford’s Strategy Inventory for Language Learning, version 5.1 (Oxford 1990). As stated earlier, Chinese as a Foreign/Second Language Acquisition

(CFL/CSL) is a new discipline with only 20 years of history. Consequently, the amount of research conducted to date is understandably limited; especially research in language learner strategies (referring to consciously selected techniques that the user believes will enhance language learning in the current study, see Section 2.1.2). For this reason no learning strategy instruments have been developed specifically for investigating LLS in studying Chinese language so far. I have provided reasons for the use of SILL elsewhere in Section 2.1.3. The reasons for using this instrument in the current study, to reiterate, are:

- SILL version 5.1 (Oxford 1990) was intentionally designed for English speakers learning a new language;
- SILL “has been used extensively through the world in a variety of language settings and with a variety of languages” (Grainger 2005, p. 333). It “had an enormous impact and by the mid-1990s, it was estimated that it had been used to assess the strategy use of more than 10,000 learners worldwide” (Cohen and Macaro 2007, p. 17), and it is “without doubt the most widely used instrument in language learner strategies research” (Cohen and Macaro 2007, p. 95);
- SILL “has been deployed extensively to measure perceived strategy use and its relationship to other variables such as learning styles, gender, proficiency level, culture, and task” (Cohen and Macaro 2007, p. 94);
- SILL “is one of the few instruments to be tested for social reliability response data, ensuring it is free from bias and that students do, in fact, answer the SILL honestly” (Oxford 1996b);
- “Oxford’s taxonomy of six strategy factors provided the most consistent fit with learners’ strategy use” (Cohen and Macaro 2007, p. 95; Hsiao and Oxford 2002; Liu 2005);
- Before we investigate the use of the specific strategies in a particular Chinese language learning task, it would be helpful if we could first understand the general trend of Chinese as L2 learning strategy use, and SILL was designed for this purpose.
- Many SILL studies allow for comparison (Y. Wu 2007)

As version 7.0 is for speakers of other languages learning English, the current study opted for version 5.1, the 80 items of SILL, for the pilot study. In this part of the pilot study questionnaire, “Strategies Questionnaire” had minor changes from Version 5.1, for example, “a new language” was changed to “Chinese” when necessary. The responses for “how true of you the statement is” were also changed to make it easier for the participants to answer. The responses were changed to “how often you do as the statement says”. The following table indicates the modifications for responding to this part of the question items:

**Table 5.1: The Modifications on How to Respond to Question Items in Part C**

<b>Version 5.1</b>	<b>Current Pilot Study</b>
1. Never or almost never true of me	1. Never or almost never do this
2. Usually not true of me	2. Generally not do this;
3. Somewhat true of me	3. Somewhat do this;
4. Usually true of me	4. Generally do this; and
5. Always or almost always true of me	5. Always do this

From Oct, 2007 to Feb, 2008, the pilot study was conducted at local universities and senior high schools: such as Newcastle University, Sunderland University, Hummersknott Secondary School and Language College. Each group, heritage and non-heritage, had ten students taking part in the questionnaire study. Among these five students from each group also took part in the interview study.

As the questionnaire instrument was very long, 14 pages in total, it proved to be difficult to get respondents. Originally many more had agreed to take part in the study. Having received the survey, a certain number did not return the forms. Altogether it took five months to get the data for the pilot study. Some respondents commented: “*As thorough as your research needs to be, this survey is too long for any participant to fill in one session. If you would like people to give you feedback, you should send different sections to different participants or condense this survey*” (quoted from a participant from the pilot study). In responding to the problems arising from the pilot study, some amendments and adjustments were made for the main study.

## **5.4 Main Study: Quantitative Section**

### **5.4.1 Participants**

A total of 278 Chinese learners from 18 UK universities, colleges and schools, namely University of Sunderland, Newcastle University, University of Oxford, SOAS, University of Warwick, Imperial College of London, Kings College London, University of Leeds, Glasgow Chinese School, Edinburgh ESSC, Gloucester Mandarin School, Pate's Grammar School, St Tomas Richards Chinese School, Hummersknott School and Language College, Trinity School, George Herriot's School, Carmel College, and St George School for Girls, were invited to participate in the study. This yielded 259 valid questionnaires. The other 19 were incomplete and so were treated as invalid data. The participants for this study were classified into two groups: 1) heritage Chinese students group, including students whose any immediate family members could speak Chinese languages, such as Mandarin, Cantonese or Hakka and lived with them at the time of this study; 2) non-heritage Chinese students group, including students with no immediate family members speaking any Chinese language. One hundred and seventeen participants (45.2%) were heritage Chinese language learners and one hundred and forty two (54.8%) were non-heritage Chinese language learners (please refer to Table 6.1 for more background information of the participants).

### **5.4.2 Instruments**

In some disciplines, such as applied linguistics and education, quantitative data and qualitative data are the two main types of primary data, and quantitative and qualitative research are the two major research paradigms for collecting and analysing such data (Dörnyei 2007). Mackey and Gass (2005, p. 2) characterized quantitative research and qualitative research in the following table:

**Table 5.2: Characteristics of Quantitative and Qualitative Research (Mackey and Gass, 2005, p. 2)**

<b>Quantitative Research</b>	<b>Qualitative Research</b>
Obtrusive, involving controlled measurement	Naturalistic and controlled observation
Objective and removed from the data	Subjective
Verification oriented, confirmatory	Discovery oriented
Outcome-oriented	Process oriented
Reliable, involving 'hard' and replicable data	'Soft' data
Generalizable	Ungeneralizable, single case studies
Assuming a stable reality	Assuming a dynamic reality
	Close to the data

Questionnaires are among the most common methods for data collection in second language research (Dörnyei 2003b, p. 1). The reason for the popularity of questionnaires is: “they are easy to construct, extremely versatile, and uniquely capable of gathering a large amount of information quickly in a form that is readily processable” (ibid). Dörnyei (2003b, p. 9) pointed out that “the main attraction of questionnaires is their unprecedented efficiency in terms of researcher time, researcher effort, and financial resources”. Questionnaires are quicker to administer than interviews. They are cheaper than interviews and questionnaire data are also easier to collate and analyze than interviews, especially when using computer software (ibid).

In research on learning strategies, there are various ways to collect data, such as: diaries and journals, or think-aloud protocols, questionnaires, and interviews (Wenden 1991, O’Malley and Chamot 1990). Chamot (2005, p. 114) claimed that “the most frequently used method for identifying students’ learning strategies is through questionnaires”. Recognizing these advantages, this study employed a survey study to investigate its research questions.

In addition, as Mackey and Gass (2005) observed, to draw a hard distinction between the quantitative and qualitative methods would be simplistic, as the relationship between the two is more of a continuum of research types (Mackey and Gass, 2005, p. 2). In his book: *Research methods in applied linguistics*, Dörnyei (2007) also

maintained that the two methods are not exclusive. He introduced and advocated a method that he called “mixed method research”. This method “involves the combined use of quantitative and qualitative methodologies with the hope of offering the best of both worlds” (p. 20). This method encompasses “the collection or analysis of both quantitative and qualitative data in a single study with some attempts to integrate the two approaches at one or more stages of the research process” (Dörnyei 2007, p. 163).

The purpose for using mixed method research is to “achieve a fuller understanding of a target phenomenon” (Dörnyei 2007, p. 164). Some researchers in Second Language Acquisition have used this paradigm for their studies. For example: Hu (2008) used questionnaires and interviews to investigate ethnic bilingual minority teachers’ tactics in learning Chinese. Xu (1999, 2003) also used this paradigm to explore different tactics of Chinese and foreign students in learning a second language.

Inspired by the above arguments, apart from a set of survey instruments, the current study also incorporated qualitative interviews as mixed methods. The instruments therefore include questionnaires and semi-structured interviews.

Based on feedback from the respondents for the pilot study, the instruments for the main study consisted of three parts. Part A was: *The Individual Background Information Questionnaire*. Part B was: *What I Believe about Language Learning*. Part C was: *How do I Learn Mandarin Chinese*.

Part A: *The Individual Background Information Questionnaire*, was streamlined and cut down to 16-items. Questions mainly focused on: family background; years of Chinese language study; hours studying in class and outside of class; motivation for studying Chinese; and self-reported proficiency levels compared to native Chinese speakers. The use of self-reported proficiency levels has been adopted by many other researchers, for example Fan (1999), Wharton (2000), and Hong (2006).

Part B: *What I Believe about Language Learning*, was adopted and adapted from Horwitz's (1987) 34 items of "The Beliefs about Language Learning Inventory (BALLI)" (see Section 2.2.4.1). For the purpose of the current study, only minor modifications of the BALLI were made. For example, "English" was changed to "Mandarin", or "Mandarin Chinese".

Part C: Based on the response from the pilot study, *How do I Learn Mandarin Chinese*, was adopted and adapted from SILL, version 7.0. As reported earlier, version 5.1, with eighty items, was initially used for the pilot study. The use of version 5.1 in the pilot study has proved to be cumbersome and time consuming. Given that the current study is a broad survey of Chinese learners' learning strategies, and considering the time constraints, Oxford's SILL 7.0 version was adopted in the main study (MacIntyre and Noels 1996). Please refer to Section 2.1.3 for more information on SILL. In this part of the questionnaire, the same kinds of changes were made as in the pilot study. For example, "English" was changed to "Mandarin", or "Mandarin Chinese" (see Appendix B).

#### **5.4.3 Sampling and Procedure**

From March to June 2008, the revised questionnaires and interviews were administered and carried out successfully among 278 Chinese students at 18 UK universities, colleges, and secondary schools, most of which are based in England and Scotland (see Section 5.4.1). The questionnaires were administered and supervised either by the researcher or other instructors, teachers, or lecturers in the Chinese class. A brief description of the study with a cover letter, including consent form, was provided and signed by the participants (see Appendix B). After that, a small number of randomly selected students were invited to participate in the interview.

#### **5.4.4 Data Analysis**

*Statistical Package for the Social Sciences – SPSS 17 for Windows* was used to carry out statistical analyses for the quantitative data received from this survey study.

Several statistical procedures were involved, including the most frequently used tests in second language acquisition research, such as: descriptive statistical analyses and independent-samples t-tests, correlation, regression, ANOVA (Larson-Hall, 2010), and not as frequently used tests in SLA, such as factor analysis:

- 1). Descriptive statistical analyses and independent-samples t-tests were used to analyze the survey of participants' backgrounds variables, such as: gender, age, mother tongue, and students' self-reported Chinese language proficiency level, and other main variables, for instance, their motivations, beliefs, and strategy items. These types of analyses were frequently used in LLS research (e.g., Gu 2002; Le 2004; Magogwe and Oliver 2007; Oxford and Nyikos 1989, and Nun 2005). To take Oxford and Nyikos (1989) as an example, they used descriptive statistical analyses to determine the university students' overall patterns of variables affecting choice of LLS.
- 2). Principle-component analysis and factor analysis (varimax rotation) were performed to discern the underlying factors for the belief and strategy items. This type of analysis was not used as frequently as descriptive analysis. However, some, for example, Oxford and Nyikos (1989), Nyikos and Oxford (1993), Nikitina and Furuoka (2006), Le (2004), and Tanaka and Ellis (2003), used this test to discern the underlying factors on the SILL or BALLI and to determine which variables tend to cluster together into homogeneous sets to construct a component.
- 3). The Pearson product-moment correlation analyses was also used to explore the interrelationships among variables, for instance, the participants' Chinese proficiency levels and their perceptions of LLS use, surveyed in the current study. This type of analysis was used by some, for instance Tanaka and Ellis (2003), Fan (1999), Griffiths (2003), and Yang (1999).
- 4). ANOVAs were employed to determine the significance of the mean differences between the learner groups, based on the factors derived from the factor analyses, followed by post-hoc tests when significance was indicated to identify exactly where significant differences lay. This was used by some for example, Oxford and Nyikos (1989), Green and Oxford (1995), Noels (2005), Shmais (2003), and Kondo-Brown (2005).



- 5). Separate analyses of covariance (ANCOVAs) were further computed by using proficiency as a covariate while looking at the difference between CHLs and NCHLs. This technique was also used by Elbaum, Berg, and Dodd (1993). They conducted ANCOVA using the total number of hours assigned to the five formal activities as the dependent variable, with the average enjoyment rating of the formal activities and length of previous language study as covariates. The rationale for them using this analysis was that whereas the total number of hours assigned to formal activities was predictable from the hours assigned for functional activities, the perceived enjoyment ratings of the formal and functional activities were independent of one another (Elbaum et al. 1993, p. 326). Fraser (2007) also used this test to compare first and second language (L1/L2) reading rate and task performance on five tasks: scanning, skimming, normal reading, learning, memorizing, in two groups of Mandarin speakers (Canada group, China group). Fraser (2007) employed repeated measures ANOVA design with one between-subject factor (Group), two within-subject factors (Language, Task), and L2 proficiency as a covariate to investigate her research question (p. 372).
- 6). Finally multiple regression analyses were used to see which variable was the best predictor of the students' perceptions of LLS use. This technique was also used by Nun (2005), Comanaru and Noels (2009), Li and Qin (2006).

The quantitative data results are reported and discussed in terms of the six research questions in Chapter Six. For now, let us turn our attention to the second part of the main study: the qualitative study.

### **5.5 Main Study: Qualitative Section**

Just as with any other methodology, there were problems in using questionnaires to collect data. Dörnyei (2003b, p. 9) listed a number of typical drawbacks, including:

- Simplicity and superficiality of answers
- Unreliable and unmotivated respondents
- Respondent literacy problems

- Little or no opportunity to correct the respondents' mistakes
- Social desirability bias
- Self-deception
- Acquiescence bias
- Halo effect (the halo effect concerns the human tendency to over-generalize)

In order to compensate for the drawbacks of the questionnaires, interviews were used as well. The main reasons for the utility of interviews are:

1. The researcher can expect the interviewees to treat the questions more seriously than in questionnaires.
  - There is less opportunity in interviews than in questionnaires for the respondents inadvertently to omit something.
  - Any ambiguities or misunderstanding of the questions can be clarified (e.g., respondents' first language can be used to interpret the meaning).
  - Interviewing is a method of collecting data that can stand on its own or serve as a follow-up to another method. For example, interviews may offer insights that help researchers to interpret responses to questionnaires.
  - It is flexible in the sense that the interviewer may change the questions if necessary. The interviewees also have a right to change the question or focus themselves.
  - During the interview, both the researcher and the respondents have the opportunity to ask for further information or undertake in-depth understanding of both the researcher's and the research participants' perspectives or experiences.

Li (2004, p. 143)

These viewpoints provide the current researcher good reasons for including interviews in the current study. It followed up to the other quantitative method and offered insights that helped the researcher to interpret participants' responses to questionnaires.

Interviews can be classified into three groups: structured interviews, semi-structured interviews and unstructured interviews, depending upon the degree of formality (Nunan 1992, p. 149).

In a structured interview which is the most formal type, researcher totally predetermines the agenda, and works through a list of set questions in a predetermined order (ibid). An unstructured interview is guided by interviewees' responses rather than by researcher's agenda (ibid). In a semi-structured interview, the interviewer has a general idea of where he or she wants the interview to go, and what should come out of it, but is not restricted by a list of predetermined questions (ibid).

Unstructured and semi-structured interviews can be found in much qualitative research. As a semi-structured interview is flexible in nature (Nunan 1992), the current researcher employed the semi-structured interview for the qualitative part of the main study.

The interview questions were arranged to elicit more qualitative data with the purpose of supplementing numerical data gathered for the research questions. The main questions asked were: why you chose to study Chinese (motivation); what you believe about learning the language (language learning beliefs); how you study the language (learning strategies); and what your view is on the relationship between your reasons (motivations) and beliefs and strategies in studying Chinese (see Appendix B). The overall purpose was firstly to obtain more detailed information with regard to the research questions from the students; secondly to check the questionnaires reflected the views of the participants; and thirdly to see if any other views can be added to the questionnaires study. The participants were randomly selected and invited from those who had completed the questionnaires study.

### ***5.5.1 Sampling, Procedure, and Participants***

The qualitative Section in the main study contains two types of interviews: individual interviews and group interview. Both types of interviews were semi-structured, asking the participants the four research questions. Five participants from each Group were invited for individual interviews. The participants were from the local universities, mainly from the Centre for Lifelong Learning, University of Sunderland. In addition, twelve first year Chinese language students from Newcastle University took part in the group interview. The researcher herself conducted both types of interviews. The individual interviews lasted from 20 minutes to one hour each; the group interview lasted about 25 minutes. The interviews were all tape recorded<sup>34</sup> and then transcribed.

### ***5.5.2 Data Analysis***

In order to analyze the interview data, content analysis was employed. For the purpose of content analysis, recordings of interviews were transcribed. The contents relating to the research questions in the interviews are reported and discussed in Chapter Seven.

## **Summary**

In this methodology chapter we have presented a description of the research design. We have shown that, based on literature reviews in previous chapters, research questions were formulated. In addition, based on the results and feedback obtained from the informal pre-interviews and pilot study, the main study was conducted with a quantitative three-part questionnaire approach and qualitative semi-structured interview approach methods. We have also described the participants, the procedures, and data analyses for the study. In the next chapter we will present the results and discussion from the quantitative study.

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<sup>34</sup> One recording from heritage Chinese group was unfortunately damaged, which left four individual interviews from this group to be used in this study.

## **Chapter 6: Data Results and Discussion of the Quantitative Study**

This chapter presents the results and the discussion of the quantitative survey from the questionnaires. It is divided into the following Sections: the reliability of the scales; results and discussion of participants' backgrounds; results of research questions 1-6, interspersed with a broader discussion of the data throughout, followed by a brief summary.

### **6.1 Reliability of the Scales**

Three pencil-and-paper questionnaires were used for the current study, as described in the previous chapter. The questionnaires recorded (i) *Individual Background*, (ii) *What I Believe about Language Learning* (for which BALLI was adapted and used), and (iii) *How do I Learn Mandarin Chinese*, (for which SILL was adapted and used). The internal reliability of each of the scales was tested using Cronbach's alpha. The test results had good internal consistency and the three scales were all found to be reliable. The alpha coefficients of each scale were: .7 for *Individual Background*, .7 for *What I Believe about Language Learning* (BALLI), and .9 for *How do I Learn Mandarin Chinese* (SILL). These values satisfied the recommended value of .7 (Pallant 2005).

### **6.2 Participants' Backgrounds**

Descriptive statistical analyses and independent-samples t-tests were used to analyze the survey of participants' background variables, such as: gender, age, mother tongue, and students' self-reported Chinese language proficiency levels.

In total, 278 Chinese learners from 18 universities, colleges and schools participated in this study. Among these, nineteen participants did not complete the survey and were treated as invalid. This left 259 valid samples of data. The participants' demographic backgrounds are summarized in Table 6.1 below.

**Table 6.1: Participants' Demographic Background**

		Heritage (117)	Non-Heritage (142)	Total	
		<i>n</i>	<i>n</i>	<i>N</i>	%
Gender	Male	58	68	126	48.6
	Female	59	74	133	51.4
Age	15 – 18	56	69	125	48.4
	18 – 26	51	53	104	40.3
	26 – 40	4	12	16	6.2
	Above 40	5	8	13	5.0
Mother tongue	English	60	131	191	73.7
	Cantonese	41	0	41	15.8
	Mandarin	5	0	5	1.9
	Other Asian Language	8	1	9	3.5
	Other European Language	3	10	13	5.0
Proficiency level	Beginner	29	71	100	38.6
	Intermediate	39	55	94	36.3
	Advanced	28	14	42	16.2
	Near Native	21	2	23	8.9

As shown in Table 6.1, in the current study, 142 participants were non-heritage Chinese students, making 54.8% of the total, and 117 were heritage Chinese students, making 45.2% of the total.

The number of male students was 126, making 48.6% of the total. Among them, 68 were non-heritage students, and 58 were heritage students. The number of female students was 133, making 51.4% of the total participants, among which 74 were non-heritage Chinese students and 59 were heritage Chinese students. The youngest participant in this study was 15 years old, and the oldest was 61 ( $M = 20.30$ ,  $n = 259$ ,  $SD = 8.26$ ). In terms of age, the independent-samples t-test showed there was no significant difference in scores for non-heritage ( $M = 20.54$ ,  $SD = 9.33$ ) and heritage Chinese students [ $M = 20.01$ ,  $SD = 6.76$ ,  $t(256) = .52$ ,  $p = .61$ ]. The magnitude of the differences in the means was small (eta squared = .001).

In the non-heritage Chinese student group, 131 students' mother tongue was English (taking 92.3% of the total of NCHL students' number); one participant was Japanese, taking 0.7% of the total of NCHL students; other 10 were French, Polish, Thai, Dutch, Italian and Czech (taking 7%). In the heritage Chinese student group, sixty

were English as mother tongue speakers (making 51.3% students of the total of CHL students' numbers); 41 Cantonese (making 35%); 5 Mandarin as their mother tongue speakers (making 4.3% of CHL students' numbers); three Russian (2.6%); and 8 Asian language speakers, making 6.8% of CHL students, including one Korean, one Taiwanese; four Malay; and two participants considered both English and Hakka as their mother tongue.

With regard to students' self-reported Chinese language proficiency level, the independent-samples t-test revealed that there were significant differences between heritage and non-heritage students' Chinese reading, writing, speaking, listening skills and the overall proficiency levels. Reading proficiency scores for CHL students were  $M = 2.13$ ,  $SD = 1.10$ , for NCHL students  $M = 1.40$ ,  $SD = .63$ ;  $t(257) = -6.65^{35}$ ,  $p = .001$ , with a large effect size .14; Writing proficiency scores for CHL students were  $M = 1.84$ ,  $SD = .91$ , for NCHL students  $M = 1.39$ ,  $SD = .640$ ;  $t(257) = -4.67$ ,  $p = .001$ , with a medium effect size .08; Speaking proficiency scores for CHL students were  $M = 2.13$ ,  $SD = 1.12$ , for NCHL students  $M = 1.43$ ,  $SD = .68$ ;  $t(257) = -6.19$ ,  $p = .001$ , with a nearly large effect size .13; listening proficiency scores for CHL students were  $M = 2.18$ ,  $SD = 1.07$ , for NCHL students  $M = 1.37$ ,  $SD = .67$ ;  $t(257) = -7.39$ ,  $p = .001$ , with a large effect size .18; Overall proficiency scores for CHL students were  $M = 2.35$ ,  $SD = 1.04$ , for NCHL students  $M = 1.63$ ,  $SD = .72$ ;  $t(257) = -6.57$ ,  $p = .001$ , again with a large effect size .14 (see Table 6.2).

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<sup>35</sup> Note that the t-values here and below are all negative as the first mean was calculated for Non CHL students, whose scores were lower than CHL students.

**Table 6.2 Comparison of Proficiency Levels between the Two Groups**

	Group	<i>n</i>	<i>M</i>	<i>SD</i>	Sig. (2-tailed)	Effect Size (Eta)
Reading proficiency	NH	142	1.40	.63	.001	.14
	H	117	2.13	1.10	.001	
Writing proficiency	NH	142	1.39	.64	.001	.08
	H	117	1.84	.91	.001	
Speaking proficiency	NH	142	1.43	.68	.001	.13
	H	117	2.13	1.12	.001	
Listening proficiency	NH	142	1.37	.67	.001	.18
	H	117	2.18	1.07	.001	
Overall proficiency	NH	142	1.63	.72	.001	.14
	H	117	2.35	1.04	.001	

*Note: H=Heritage Students Group; NH=Non-Heritage Students Group; Effect size ranged from 0 to 1: .01=small effect; .06=moderate effect; .14=large effect*

One should not be surprised by the above results, which provide evidence to what Brecht and Ingold (2002) argued, namely that heritage language speakers possess linguistic skills rarely attained by non-heritage language speakers (see Section 1.2).

### **6.3 Results of Research Question One**

#### **Research Question 1: Are heritage Chinese students' perceptions of Chinese language learning strategy use different from those of non-heritage Chinese students?**

RQ1 was asked based on the issues raised in Section 2.3.2 and Section 3.2. The hypothesis was: "Heritage Chinese students' perceptions of Chinese language learning strategy use are different from those of non-heritage Chinese students".

##### **6.3.1 Students' Self-reported Strategy Use**

To answer research question one, which relates to the profile of heritage and non-heritage students' perceptions of strategy use on the SILL test, preliminary descriptive statistics for mean and standard deviation were computed.

According to Oxford (1990, p. 291), a mean score above 3.5 on a SILL item is considered to reflect high use of a given strategy; 2.5 to 3.4 indicates medium use; and below 2.4 suggests low use of a strategy (see Table 2.3). Table 6.3 therefore



shows overall picture of heritage and non-heritage Chinese students' reported strategy use in terms of these three categories. The majority of students reported medium use to high use of strategies, 82% from heritage students and 76% from non-heritage students. The heritage Chinese students used strategies more often than non-heritage Chinese students.

**Table 6.3: Comparison of Overall Means of Reported Strategy Use**

Usage	Heritage		Non-Heritage	
	<i>N</i>	%	<i>N</i>	%
High ( $M > 3.5$ )	6	12	7	14
Medium ( $3.4 < M < 2.5$ )	35	70	31	62
Low ( $M < 2.4$ )	9	18	12	24
Total	50	100	50	100

The heritage and non-heritage students also had different preferences with regard to their perceptions of LLS use: Table 6.4 shows us the strategies that the heritage and non-heritage students reported using the most. For example the heritage students preferred the following strategies the most: memory strategy 1 “*I think of relationships between what I know and new things I learn in Mandarin*” ( $M = 3.83$ ,  $SD = .99$ ), memory strategy 2 “*I use the new Mandarin words in a sentence so I can remember them*” ( $M = 3.96$ ,  $SD = 1.17$ ), cognitive strategy 15 “*I watch Chinese language TV or movies spoken in Mandarin*” ( $M = 3.68$ ,  $SD = .94$ ), metacognitive strategy 30 “*I try to find as many ways as I can to use my Mandarin Chinese*” ( $M = 3.89$ ,  $SD = .88$ ), metacognitive strategy 31 “*I notice my Chinese mistakes and use that information to help me do better*” ( $M = 4.13$ ,  $SD = .63$ ), and metacognitive strategy 32 “*I pay attention when someone is speaking Chinese*” ( $M = 4.09$ ,  $SD = .69$ ). Like the heritage Chinese students, non-heritage students also preferred the metacognitive strategy 32 the most ( $M = 4.05$ ,  $SD = .78$ ). In addition, they also preferred social strategies the most, such as social strategy 45 “*If I do not understand something in Chinese, I ask the other person to slow down or say it again*” ( $M = 3.84$ ,  $SD = .92$ ), social strategy 46 “*I ask Chinese speaker to correct me when I talk*” ( $M = 3.76$ ,  $SD = .91$ ), social strategy 47 “*I practice Chinese with other students*” ( $M = 3.72$ ,  $SD = 1.09$ ), social strategy 48 “*I ask for help from Chinese speakers*” ( $M =$

3.70,  $SD = 1.03$ ), and social strategy 50 “*I try to learn about the culture of Chinese speakers*” ( $M = 3.99$ ,  $SD = .98$ ). This information suggested that non-heritage Chinese students used social strategies in high frequencies.

**Table 6.4: Reported Strategy Use Categorized by High Usage ( $M > 3.5$ )**

	<b>Questionnaire Item</b>	<b>Rank</b>	<b>Mean</b>	<b>SD</b>
H	MEM (1): I think of relationships between what I know and new things I learn in Mandarin.	5	3.83	.99
	MEM (2): I use the new Mandarin words in a sentence so I can remember them.	3	3.96	1.17
	COG (15) I watch Chinese language TV or movies spoken in Mandarin.	6	3.68	0.94
	MET (30): I try to find as many ways as I can to use my Mandarin Chinese.	4	3.89	.88
	MET (31): I notice my Chinese mistakes and use that information to help me do better.	1	4.13	.63
	MET (32): I pay attention when someone is speaking Chinese.	2	4.09	.69
NH	MET (32): I pay attention when someone is speaking Chinese.	1	4.05	.78
	SOC (45): If I do not understand something in Chinese, I ask the other person to slow down or say it again.	3	3.84	.92
	SOC (46): I ask Chinese speaker to correct me when I talk.	4	3.76	.91
	SOC (47): I practice Chinese with other students.	5	3.72	1.09
	SOC (48): I ask for help from Chinese speakers.	6	3.70	1.03
	SOC (50): I try to learn about the culture of Chinese speakers.	2	3.99	.98

*Note: H = Heritage; NH = Non-Heritage; MEM = Memory Strategies; COG = Cognitive Strategies; MET = Metacognitive Strategies; SOC = Social Strategies.*

Table 6.5 shows the strategies that heritage and non-heritage students used the least. For instance, heritage Chinese students least preferred memory strategies 5 and 3, compensation strategy 26, and affective strategies 41, 43 and 44; whereas non-heritage Chinese students least preferred memory strategies 2 and 7, cognitive strategies 15, 16, and 17, metacognitive strategy 36, and affective strategies 43 and 44 (please refer to Table 6.5 for details).

**Table 6.5: Reported Strategy Use Categorized by Low Usage ( $M < 2.4$ )**

	Questionnaire Item	Rank	<i>M</i>	<i>SD</i>
H	MEM (3): I connect the sound of a new Chinese word and image or picture of the word to help me remember it.	47	2.25	1.19
	MEM (5): I use rhymes to remember new Chinese words.	45	2.34	.99
	COM (26): I make up new words if I do not know the right ones in Chinese.	49	2.17	1.13
	AFF (41): I give myself a reward or treat when I do well in Chinese.	48	2.22	1.08
	AFF (43): I write down my feelings in a language diary.	50	1.80	1.10
	AFF (44): I talk to someone else about how I feel when I am learning Chinese.	46	2.29	1.22
NH	MEM (2): I use the new Mandarin Chinese words in a sentence so I can remember them.	45	2.29	1.20
	MEM (7): I physically act out new Chinese words.	44	2.31	1.45
	COG (15): I watch Chinese language TV shows spoken in Mandarin Chinese or go to movies spoken in Mandarin Chinese.	48	1.99	1.07
	COG (16): I read for pleasure in Mandarin Chinese.	50	1.71	1.04
	COG (17): I write notes, messages, letters, or reports in Mandarin Chinese.	49	1.92	1.14
	MET (36): I look for opportunities to read as much as possible in Chinese.	46	2.27	1.13
	AFF (43): I write down my feelings in a language diary.	43	2.38	1.08
	AFF (44): I talk to someone else about how I feel when I am learning Chinese.	47	2.21	1.16

*Note: H = Heritage Group; NH = Non-Heritage Group; MEM = Memory Strategies; COM = Compensation Strategies; AFF = Affective Strategies; COG = Cognitive Strategies; MET = Metacognitive Strategies.*

The students' perceptions of LLS use differed between the two groups, although both groups liked using metacognitive strategy 32 "*I pay attention when someone is speaking Chinese*" ( $M = 4.09, n = 117, SD = .69; M = 4.05, n = 142, SD = .78$ , respectively) (see Table 6.4), and both heritage and non-heritage Chinese students used affective strategy 43 "*I write down my feelings in a language diary*" ( $M = 1.80, n = 117, SD = 1.10; M = 2.38, n = 142, SD = 1.08$ , respectively) and affective strategy 44 "*I talk to someone else about how I feel when I am learning Chinese*" ( $M = 2.29, n = 117, SD = 1.22; M = 2.21, n = 142, SD = 1.16$ , respectively) the least (see Table 6.5).

Further analysis showed significant differences in the use of the six categories of strategies between the two groups (see Table 6.6). Heritage students used significantly more memory strategies (item 1 to 9 in Questionnaire C, Appendix B) ( $M = 2.95$ ,  $n = 114$ ), cognitive strategies (item 10 to 23 in Questionnaire C, Appendix B) ( $M = 2.93$ ,  $n = 109$ ), and metacognitive strategies (item 30 to 38 in Questionnaire C, Appendix B) ( $M = 3.32$ ,  $n = 112$ ) than their non-heritage counterparts ( $M = 2.65$ ,  $n = 142$ ;  $M = 2.75$ ,  $n = 136$ ;  $M = 3.10$ ,  $n = 140$ , respectively), with p values of .002; .008; and .003, respectively (all  $< .01$ ). Non-heritage students used significantly more compensation strategies (item 24 to 29 in Questionnaire C, Appendix B) ( $M = 2.83$ ,  $n = 140$ ), affective strategies (item 39 to 44 in Questionnaire C) ( $M = 2.67$ ,  $n = 141$ ) and social strategies (item 45 to 50 in Questionnaire C, Appendix B) ( $M = 3.51$ ,  $n = 141$ ) than heritage Chinese students ( $M = 2.54$ ,  $n = 117$ ;  $M = 2.49$ ,  $n = 117$ ;  $M = 3.25$ ,  $n = 115$ , respectively), with p values of .001 ( $< .01$ ); .024 ( $< .05$ ); and .007 ( $< .01$ ), respectively.

**Table 6.6: Differences in Means and Standard Deviations of Overall Strategy Use among the Six Categories of Strategies on the SILL**

		<i>n</i>	Mean	SD	Sig. (2-tailed)	Difference
MEM	NH	142	2.65	.88	.002	H>NH
	H	114	2.95	.55		
COG	NH	136	2.75	.51	.008	H>NH
	H	109	2.93	.57		
COM	NH	140	2.83	.65	.001	NH>H
	H	117	2.54	.65		
MET	NH	140	3.10	.63	.003	H>NH
	H	112	3.32	.53		
AFF	NH	141	2.67	.66	.024	NH>H
	H	117	2.49	.58		
SOC	NH	141	3.51	.63	.007	NH>H
	H	115	3.25	.91		

*Note: H = Heritage; NH = Non-Heritage; MEM = Memory Strategies (item 1 to 9 in Questionnaire C, Appendix B); COG = Cognitive Strategies (item 10 to 23 in Questionnaire C, Appendix B); COM = Compensation Strategies (item 24 to 29 in Questionnaire C, Appendix B); MET = Metacognitive Strategies (item 30 to 38 in Questionnaire C, Appendix B); AFF = Affective Strategies (item 39 to 44 in Questionnaire C, Appendix B); SOC = Social Strategies (item 45 to 50 in Questionnaire C, Appendix B).*

### 6.3.2 Factor Analysis of LLS

In order to explore more with regard to CHL and NCHL students' use of LLS, factor analysis (principle component analyses) of the SILL items was performed. By using this method the internal structure of students' perceived learning strategies use was revealed and statistical meaningful categories of the SILL was produced.

Correlation matrix, factor extraction, and varimax rotation procedures were gone through for the 50-items of SILL. Screen test and the eigenvalues of greater than 1.0 were used for extracting the factors. Factor analysis was also used by Nyikos and Oxford (1993), Green and Oxford (1995), and Hong (2006) in their LLS research.

Before starting factor analysis, Kaiser-Meyer-Olkin (KMO) sampling adequacy test and Bartlett's Test of Sphericity were conducted in order to see whether factor analysis on SILL was suitable. Table 6.7 below reports the results of these two tests. The KMO sampling adequacy test statistic for the non-heritage group and heritage group were .59 and .58, respectively. The KMO for these groups appeared to be higher than recommended value of .5 for a good factor analysis. In addition, Bartlett's Tests for Sphericity Statistic for the two groups were significant at .001 levels. These results indicated that the null hypothesis which states that the correlation matrix is an identity-matrix is rejected. Therefore, these results support the validity of the factor analysis usage on LLS in this study as non-heritage Chinese students group and as heritage Chinese students group.

**Table 6.7: KMO and Bartlett's Tests for Factor Analysis of SILL**

	NH	H
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.59	.58
Bartlett's Test of Sphericity	.000	.000

*Note: NH = Non-Heritage Group; H = Heritage Group*

According to the principal-component analysis, seven factors accounted for the variance of scores in the SILL. However, an investigation of the screen plot revealed a clear break after the six components, which suggested that a six-factor solution was the most appropriate. The six factors accounted for 39.48% and 40.73% of the total

variance for the non-heritage group and for the heritage group. Varimax rotation was then used to make the factors more interpretable. The reliability of each factor for the non-heritage Group and for the heritage group was examined using Cronbach's alpha. The Cronbach alpha values (see Table 6.8) ranged mostly from .65 to .87. The results suggested good internal consistency and the categories of factors were found to be reliable. Table 6.8 below presents a summary of the results of the Factor Analysis of the SILL results.

**Table 6.8: Factor Analysis – SILL**

	Factor	Eigenvalue	% of Variance	Cumulative %
Non-Heritage Students Group	1 Compensation and affective strategies ( $a = .87$ )	4.87	9.74	9.74
	2 Social strategies ( $a = .78$ )	3.47	6.95	16.69
	3 Cognitive strategies ( $a = .71$ )	3.34	6.69	23.37
	4 Functional practice strategies ( $a = .65$ )	2.88	5.76	29.13
	5 Metacognitive strategies ( $a = .62$ )	2.69	5.38	34.51
	6 Memory strategies ( $a = .59$ )	2.48	4.97	39.48
Heritage Students Group	1 Memory strategies ( $a = .84$ )	4.01	8.02	8.02
	2 Formal oral practice strategies ( $a = .78$ )	3.47	6.93	14.95
	3 Cognitive strategies ( $a = .76$ )	3.38	6.77	21.72
	4 Metacognitive strategies ( $a = .74$ )	3.27	6.55	28.27
	5 Compensation and affective strategies ( $a = .70$ )	3.13	6.25	34.52
	6 Social strategies ( $a = .70$ )	3.11	6.21	40.73

In the heritage Chinese students group (please refer to the table in the Appendix C), factor 1 – memory strategies consisted of six items from the original subcategory of memory strategies from SILL (item 4, 5, 6, 7, 8, 9). Factor 2 – formal oral practice strategies included four cognitive strategies items – item 11, 12, 13, 14 and three memory strategies items – item 1, 2 and 3 from SILL. Factor 3 – cognitive strategies consisted of ten items from original same subcategory of SILL (item 10, 15, 16, 17,

18, 19, 20, 21, 22, 23). Factor 4 – metacognitive strategies included nine items from SIL metacognitive strategies category (item 30, 31, 32, 33, 34, 35, 36, 37, 38). Factor 5 – compensation and affective strategies consisted two items from SILL's compensation category (item 26 and 28) and 4 items from SILL's affective category (item 39, 41, 42, and 43). Factor 6 – social strategies included item 40, 44, 45, 46, 47, 48, 49 and 50 from the original SILL.

In the non-heritage Chinese students group (please see the table in the Appendix C), factor 1 – compensation and affective strategies included five items from SILL's compensation subcategory (item 24, 25, 26, 27, 29), and four items from SILL's affective strategies (item 39, 40, 41, 43, 44). Factor 2 – social strategies consisted of the six social strategies from SILL. Factor 3 – cognitive strategies included 11 cognitive strategies from SILL (item 10, 11, 12, 13, 14, 18, 19, 20, 21, 22, and 23). Factor 4 – functional practice strategies consisted of item 15, 16, 17, 31, 32, 33, and 34. Factor 5 – metacognitive strategies included five metacognitive strategies from SILL (item 30, 35, 36, 37, 38). Factor 6 – memory strategies included all of the 9 memory strategies from SILL.

The above results confirmed the First Hypothesis: heritage Chinese students' perceptions of Chinese language learning strategy use were different from non-heritage Chinese students'. The differences were displayed in three aspects. Firstly CHL and NCHL students differed in their most and least preferred LLS: CHL students' most preferred strategies were memory strategy 1 and 2, cognitive strategy 15, metacognitive strategy 30, 31 and 32; whereas NCHL students' most preferred strategies were metacognitive strategy 32; social strategies 45, 46, 47, 48 and 50. The least strategies that CHL students preferred were memory strategy 3 and 5; compensation strategy 26; affective strategy 41, 43 and 44; whereas the least strategies that NCHL students preferred were memory strategy 2 and 7; cognitive strategy 15, 16 and 17; metacognitive strategy 36; affective strategy 43 and 44. Secondly, CHL and NCHL students displayed significant differences in the six categories of LLS – heritage Chinese students used significantly more memory,

cognitive, and metacognitive strategies than did non-heritage students, and non-heritage Chinese students employed significantly more compensation, affective, and social strategies than did CHL students; Thirdly, factor analysis further revealed that the internal structures of CHL and NCHL students' perceptions of LLS use were different. The six factors for the CHL students' LLS were: factor 1 – memory strategies, factor 2 – formal oral practice strategies, factor 3 – cognitive strategies, factor 4 – metacognitive strategies, factor 5 – compensation and affective strategies and factor 6 – social strategies; whereas the six factors for the NCHL students' LLS were: factor 1 – compensation and affective strategies, factor 2 – social strategies, factor 3 – cognitive strategies, factor 4 – functional practice strategies, factor 5 – metacognitive strategies and factor 6 – memory strategies.

### **6.3.3 Discussion of the Results from Research Question One**

Firstly, the current study detected that the CHL students' most preferred strategies were: memory strategy 1 *"I think of relationships between what I know and new things I learn in Mandarin"* ( $M = 3.83, SD = .99$ ), memory strategy 2 *"I use the new Mandarin words in a sentence so I can remember them"* ( $M = 3.96, SD = 1.17$ ), cognitive strategy 15 *"I watch Chinese language TV or movies spoken in Mandarin"* ( $M = 3.68, SD = .94$ ), metacognitive strategy 30 *"I try to find as many ways as I can to use my Mandarin Chinese"* ( $M = 3.89, SD = .88$ ), metacognitive strategy 31 *"I notice my Chinese mistakes and use that information to help me do better"* ( $M = 4.13, SD = .63$ ), and metacognitive strategy 32 *"I pay attention when someone is speaking Chinese"* ( $M = 4.09, SD = .69$ ). Whereas the NCHL students' most preferred strategies were: metacognitive strategy 32 the most ( $M = 4.05, SD = .78$ ). In addition, they also preferred social strategies the most, such as social strategy 45 *"If I do not understand something in Chinese, I ask the other person to slow down or say it again"* ( $M = 3.84, SD = .92$ ), social strategy 46 *"I ask Chinese speaker to correct me when I talk"* ( $M = 3.72, SD = 1.09$ ), social strategy 47 *"I practice Chinese with other students"* ( $M = 3.83, SD = .99$ ), social strategy 48 *"I ask for help from Chinese speakers"* ( $M = 3.70, SD = 1.03$ ), and social strategy 50 *"I try to learn about the culture of Chinese speakers"* ( $M = 3.99, SD = .98$ ). The least preferred strategies for CHL students were: memory strategy 3, 5 and 7, cognitive strategy 18,



compensation strategy 28 and affective strategy 41, 43 and 44. Whereas the least preferred strategies for NCHL students were: memory strategy 2, 4 and 7, cognitive strategy 11, 15, 16 and 17, metacognitive strategy 36, and affective strategy 43 and 44. Such differences can be understood in terms of the greater linguistic facility generally available to heritage students (Kagan and Dillon 2001). For example, to “*use the new Mandarin words in a sentence so I can remember them*” (memory strategy 2), and to “*watch Chinese language TV or movies spoken in Mandarin*” (cognitive strategy 15), require higher level reading, writing, and listening proficiency. As CHL students possessed significantly higher levels of proficiency, including reading, writing, and listening, than NCHL students, these two strategies, i.e., memory strategy 2 and cognitive strategy 15, not surprisingly, became two of CHL students’ most preferred strategies, and two of NCHL students’ least preferred strategies.

However, CHL and NCHL students did share some most and least preferred strategies in common: both CHL and NCHL students preferring the metacognitive strategy 32 “*I pay attention when someone is speaking Chinese*” the most, and the students in both groups preferring affective strategy 43 “*I write down my feelings in a language diary*”, and affective strategy 44 “*I talk to someone else about how I feel when I am learning Chinese*”, the least. In fact, affective strategies were reported the lowest used strategies among the six categories of LLS for both CHL and NCHL students ( $M_s = 2.49, 2.67$ , respectively), despite NCHL students using this type of strategies significantly more frequently than CHL students ( $p < .05$ ). On the other hand, CHL and NCHL students chose to study Chinese because they were interested in the language. As can be seen in Section 6.5.1, “*Mandarin Chinese is interesting*” was regarded the top reason for the students studying Chinese. Therefore it is understandable that both CHL and NCHL students’ one of the most preferred strategies would be “*to pay attention when someone is speaking Chinese*”. Secondly, the current study suggested that there were significant differences in the students’ perceptions of language learning strategies use between the two groups with regard to the six categories of LLS. Heritage students used significantly more memory strategies, cognitive strategies, and metacognitive strategies than non-

heritage students, whereas non-heritage students used significantly more compensation strategies, affective strategies, and social strategies than their heritage counterparts.

Olivares-Cuhat (2002) also reported that heritage (Spanish) students showed a greater preference for memory strategies than their non-heritage counterparts. However the mean score ( $M = 3.46$ ) of the heritage Spanish students' memory strategies was much higher than that ( $M = 2.95$ ) in the current study. In addition, different from the current study; she found that heritage Spanish students used significantly more affective strategies ( $M = 3.37$ ,  $SD = .64$ ) than their non-heritage counterparts ( $M = 2.72$ ,  $SD = .53$ ,  $t [18] = 2.50$ ,  $p = .023$ ). She suggested that the reason for this may lie in the previous experience of this group in the acquisition of SLA. She argued that, were heritage Spanish speakers faced with a new language learning situation, they would tend to use acquired language learning patterns to overcome difficulties in the target language.

In terms of cognitive strategies, heritage Chinese students were very likely to use this type of strategies in their learning language. This type of strategies are typically found to be the most popular strategies with language learners and are essential in learning a new language because these strategies not only require, but also allow for direct and immediate manipulation or use of input (Oxford (1990). This result can also be understood as a function of language proficiency as Kagan and Dillon (2001) suggested. Watching Mandarin T.V. programs or conversing with natives requires higher levels of proficiency.

Y. Wu (2007) also reported that European students, such as English, Italian, French, Spanish, and Russian, used significantly more compensation strategies and social strategies than Asian students, such as Korean, Japanese and Indonesian students (see Section 2.2.5). He argued that these two types of strategies – social and compensation strategies are closely related: social strategies are mainly to do with cooperative study and empathy, including asking for correction, confirmation, or repetition. In order to complete their study task, such students will frequently use this

type of strategies, whereas compensation strategies are used mainly because a student lacks knowledge and skills in the target language. Y. Wu argued that European students tended to use compensation strategies because they lacked knowledge and skills in the target language. In Y. Wu's point of view, the European students used more compensation strategies due to their lower proficiency levels. Therefore they tried different methods, such as using gestures or synonyms, to fill in the large gaps in their knowledge. At the same time they used social strategies in their cooperative study.

However, in Y. Wu's study (2007), Korean, Japanese and Indonesian students used significantly more affective strategies than their European counterparts, who speak English, Italian, French, Spanish, and Russian. Y. Wu's finding differs to that in the current study. Our data suggested that NCHL students used more affective strategies than CHL students, and CHL students used more memory strategies than NCHL students. In fact, both CHL and NCHL students in the current study reported these two types of strategies as their least preferred strategies. The mean scores for NCHL and CHL students' affective strategies were: 2.67, 2.49, respectively ( $SDs = .66; .58$ , respectively); and the mean scores for NCHL and CHL students' memory strategies were: 2.65, 2.95, respectively ( $SDs = .88, .55$ , respectively).

Jiang (2000) on the other hand, found that the least used strategies for both European students whose mother tongue was English, Italian, German or French and Asian students whose mother tongue was Japanese, Korean, Indonesian, or Thai were affective ( $Ms = 2.53; 3.03$ , respectively) and memory strategies ( $Ms = 2.80; 2.75$ , respectively). However, in Jiang's study (ibid.) Asian students used affective strategies much more frequently than the CHL students in the current study ( $Ms = 3.03; 2.49$ , respectively). Jiang reasoned that it was to do with students' culturally influenced personality: students from Asia are thought to be introverted, lack confidence, and to be especially sensitive to their emotions. She inferred from this that this group's students would need to use affective strategies, such as encouragement, to boost their self-confidence (see Section 2.2.5). In our point of view, environment may be a factor to make people do things differently. Living in

the UK – a very different environment to that of the Asian countries environment, for at least some period of time (although it was not our purpose to examine how long they lived in this country), we were not surprised to see that the CHL students used affective strategies the least like their non-heritage Chinese students counterparts. And if Jiang’s culturally influenced personality explanation was true, then it would also explain why the CHL students in the current study used affective strategies much less frequently than Asian students in China whose mother tongue was Japanese, Korean, Indonesian, or Thai.

Thirdly, factor analysis in the current study revealed the different internal structures of CHL and NCHL students’ perceptions of LLS use. The statistical meaningful categories of LLS for the CHL students were Factor 1 – memory strategies, Factor 2 – formal oral practice strategies, Factor 3 – cognitive strategies, Factor 4 – metacognitive strategies, Factor 5 – compensation and affective strategies, and Factor 6 – social strategies. Whereas the six factors of LLS for the NCHL students’ perceptions of LLS were: Factor 1 – compensation and affective strategies; Factor 2 – social strategies; Factor 3 – cognitive strategies; Factor 4 – functional practice strategies; Factor 5 – metacognitive strategies; and Factor 6 – memory strategies. Our results differed from the previous studies. The Table 6.9 below summarized the results from these studies. The different internal structure of CHL and NCHL students’ perceptions of LLS further remind us the different characteristics of the two distinctive group students, and therefore we should not treat them – teach them in the same way.

**Table 6.9: Summarization of Factor Analyses from Previous LLS Studies**

<b>Author/s</b>	<b>Participants</b>	<b>Instrument</b>	<b>Factors</b>
Nyikos and Oxford (1993)	1200 students at a Midwestern university setting, USA	121-items of SILL	F1: Formal, rule-related processing strategies; F2: Functional practice (authentic language use) strategies; F3: Resourceful, independent strategies; F4: Standard academic study strategies; F5: Conversational input elicitation strategies. (NB: 1. Items with factor loadings below .27 in the SILL were excluded from the factor analysis. 2. The authors did not suggest the cumulative percentage of the total variance for the five factors.)
Green and Oxford (1995)	374 students at a university setting, Puerto Rico	50-items of SILL, version 7.0	F1: Strategies for active, naturalistic use of English; F2: Metacognitive strategies with affective support; F3: Social and affective strategies; F4: Reflective strategies for language analysis and anxiety awareness; F5: Sensory memory strategies; F6: Cognitive and social strategies for conversation practice F7: Sensory imaging strategies for learning vocabulary; F8: Strategies for cognitively manipulating the language; F9: General compensation strategies (NB: 1. Items with factor loadings below .30 in the SILL were excluded from the factor analysis. 2. The cumulative percentage of the total variance for the nine factors was 52 %.)
Hong (2006)	428 monolingual Korean students at a university in Korea, and 420 bilingual Korean-Chinese students at a university in	50-items of SILL, version 7.0	<b>Monolingual Korean Group:</b> F1: Social and practical practice strategies; F2: Metacognitive strategies; F3: Memory strategies; F4: Compensation strategies; F5: Cognitive strategies; F6: Affective strategies. (NB: 1. Items with factor loadings below .40 in the SILL were excluded from the factor analysis. 2. The cumulative percentage of the total variance for the six factors was 48 %.)

	China		<p><b>Bilingual Korean-Chinese group:</b>  F1: Metacognitive and affective awareness strategies;  F2: Independent practice strategies;  F3: Cognitive strategies;  F4: Social strategies;  F5: Compensation strategies;  F6: Memory strategies.  (NB: 1. Items with factor loadings below .40 in the SILL were excluded from the factor analysis.  2. The cumulative percentage of the total variance for the six factors was 41 %.)</p>
Yang (1999)	505 university students in Taiwan	50 items SILL	<p>F1: Functional practice strategies;  F2: Cognitive-memory strategies;  F3: Metacognitive strategies;  F4: Formal oral-practice strategies;  F5: Social strategies;  F6: Compensation strategies.  (NB: 1. Items with factor loadings below .30 in the SILL were excluded from the factor analysis.  2. The cumulative percentage of the total variance for the six factors was not suggested).</p>

*Note: F=Factor*

## 6.4 Results of Research Question Two

**Research Question Two: Is the relationship between heritage students' proficiency level and their perceptions of LLS use different from that between non-heritage students' proficiency level and their perceptions of LLS use?**

Hypothesis Two: The relationship between heritage students' proficiency level and their perceptions of LLS use is different from that between non-heritage students' proficiency level and their perceptions of LLS use.

### 6.4.1 Pearson Product-Moment Correlation Analysis

In order to answer this question, the Pearson product-moment correlation analysis was conducted. This analysis method looks for a pattern of relationships among data

(Larson-Hall 2010). In other words, this method helps us to explore the interrelationships between two variables surveyed in a study. This type of analysis has been used very frequently in the area of SLA (Larson-Hall 2010), for instance in the studies by Tanaka and Ellis (2003), Fan (1999), Griffiths (2003), and Yang (1999). In the current study, Pearson product-moment correlation analysis was employed to see what relationship was between students' proficiency level and their perceptions of LLS use. By using this technique, several salient features in the correlation matrix were revealed.

As can be seen from Table 6.10, students' proficiency level was significantly and positively correlated with their cognitive and metacognitive strategies and overall strategies, with coefficient values of .32; .17; and .18, respectively, with two asterisks ( $p < .01$ ).

**Table 6.10: Correlations between Proficiency Level and LLS**

	1.	2.	3.	4.	5.	6.	7.	8.
1.	1							
2.	-.4	1						
3.	.09	.18(**)	1					
4.	.01	.04	.25(**)	1				
5.	.32(**)	.32(**)	.28(**)	.37(**)	1			
6.	.17(**)	.30(**)	.23 (**)	.38(**)	.53(**)	1		
7.	.01	.18(**)	-.10	.05	.22(**)	.20(**)	1	
8.	.18(**)	.51(**)	.43(**)	.55(**)	.80(**)	.75(**)	.52(**)	1

\*\* $p < .01$  (2-tailed); \* $p < .05$  (2-tailed)

1 = Proficiency Level; 2 = Affective Strategies; 3 = Compensation Strategies;

4 = Social Strategies; 5 = Cognitive Strategies; 6 = Metacognitive Strategies;

7 = Memory Strategies; 8 = Overall Language Learning Strategies

$r = .10$  to  $r = .29$  or  $r = -.10$  to  $r = -.29$  small;  $r = .30$  to  $r = .49$   $r = -.30$  to  $r = -.49$  medium;  $r = .50$  to  $r = 1.0$  or  $r = -.50$  to  $r = -1.0$  large

According to the correlation matrix in the Table 6.11, for the heritage Chinese students, the proficiency level was also significantly positively correlated with their Chinese cognitive strategies ( $r = .29$ ,  $n = 117$ ,  $p < .01$ ).

**Table 6.11: Correlations between Proficiency Level and Language Learning Strategy among Heritage Chinese Students**

	1.	2.	3.	4.	5.	6.	7.	8.
1.	1							
2.	-.01	1						
3.	.13	.07	1					
4.	.02	-.06	.31(**)	1				
5.	.29(**)	.17	.34(**)	.53(**)	1			
6.	.11	.25(**)	.31(**)	.40(**)	.52(**)	1		
7.	.05	.44(**)	.09	.13	.44(**)	.36(**)	1	
8.	.16	.41(**)	.52(**)	.65(**)	.85(**)	.73(**)	.64(**)	1

\*\**p* < .01 (2-tailed); \**p* < .05 (2-tailed)

1 = Proficiency Level; 2 = Affective Strategies; 3 = Compensation Strategies;

4 = Social Strategies; 5 = Cognitive Strategies; 6 = Metacognitive Strategies;

7 = Memory Strategies; 8 = Overall Language Learning Strategies

*r* = .10 to *r* = .29 or *r* = -.10 to *r* = -.29 small; *r* = .30 to *r* = .49 *r* = -.30 to *r* = -.49 medium; *r* = .50 to *r* = 1.0 or *r* = -.50 to *r* = -1.0 large

Non-heritage students' proficiency level, however, was significantly correlated with more types of Chinese language learning strategies, according to the correlation matrix in the Table 6.12 below. The proficiency level among this group students was significantly and positively correlated with their Chinese language learning strategies for the categories of compensation ( $r = .27; p < .01$ ), cognitive ( $r = .26; p < .01$ ), and social strategies ( $r = .18; p < .05$ ), and negatively significantly correlated with their memory strategies ( $r = -.17; p < .05$ ).



**Table 6.12: Correlations between Proficiency Level and Language Learning Strategy among Non-Heritage Chinese Students**

	1.	2.	3.	4.	5.	6.	7.	8.
1.	1							
2.	.04	1						
3.	.27(**)	.22(**)	1					
4.	.18(*)	.10	.12	1				
5.	.26(**)	.49(**)	.32(**)	.27(**)	1			
6.	.11	.39(**)	.26(**)	.48(**)	.51(**)	1		
7.	-.17(*)	.11	-.14	.07	.07	.09	1	
8.	.17	.62(**)	.42(**)	.51(**)	.76(**)	.77(**)	.47(**)	1

\*\**p* < .01 (2-tailed); \**p* < .05 (2-tailed)

1 = Proficiency Level; 2 = Affective Strategies; 3 = Compensation Strategies;

4 = Social Strategies; 5 = Cognitive Strategies; 6 = Metacognitive Strategies;

7 = Memory Strategies; 8 = Overall Language Learning Strategies

*r* = .10 to *r* = .29 or *r* = -.10 to *r* = -.29 small; *r* = .30 to *r* = .49 *r* = -.30 to *r* = -.49 medium; *r* = .50 to *r* = 1.0 or *r* = -.50 to *r* = -1.0 large

According to these analyses, Hypothesis Two was confirmed: the relationship between heritage students' proficiency level and their perceptions of LLS use is different from that of non-heritage students' proficiency level and their perceptions of LLS use. The heritage Chinese students' proficiency level was significantly positively correlated with their Chinese cognitive strategies. However, the non-heritage Chinese students' proficiency level was significantly and positively correlated with their compensation, cognitive, and social strategies, and negatively significantly correlated with their memory strategies.

#### **6.4.2 Discussion of the Results from Research Question Two**

Our findings were consistent with those of Goh (1997), Mochizuki (1999), and Jiang (2000). For example, Goh (1997) reported that high proficiency students used more cognitive strategies, which involve mental process in understanding using the target language, as opposed to low proficiency students. Mochizuki (1999) also found that the more proficient students used cognitive strategies more frequently than the less proficient students. In the current study, both CHL and NCHL students' Chinese

language proficiency level was significantly correlated with cognitive strategies such as repeating, analysing, reasoning, and summarizing information. This is also consistent with Jiang's findings (see Section 2.3.2). Jiang (2000) argued that the proficiency level of the target language affects the selection and the use of cognitive strategies. CHL students' proficiency level was significantly correlated with cognitive strategies, as this type of strategies, such as watching Chinese language TV and reading, requires a higher level of proficiency. Non-heritage Chinese students' proficiency level was also significantly correlated with the cognitive strategies, which means that the higher the NCH students' proficiency level, the more capable they were to read, and to watch Chinese language TV, and hence the more cognitive strategies they could use. Overall the results of the research here seemed to tally with those of previous researchers.

On the other hand, non-heritage students' proficiency level was likely to correlate significantly with compensation and social strategies such as guessing words, asking native speakers to help correct their Mandarin, or making gestures when unable to express themselves properly due to their lower level of proficiency. In addition, NCHL students' proficiency level was negatively significantly correlated with their memory strategies, which suggested that the lower the NCHL students' Chinese proficiency, the more memory strategies they used. Y. Wu (2007) also reported that students' proficiency level was negatively correlated with their memory strategies. However, in his study, the correlation was not significant (see Section 2.3.2). From our point of view, the lower the NCH students' proficiency, the more they relied on their past experience and knowledge. As their proficiency level increased, they were more capable of using cognitive strategies, and they turned to these type of strategies more.

## **6.5 Results of Research Question Three**

**Research Question Three: Is the relationship between heritage students' motivation and their perceptions of LLS use different from that of non-heritage students' motivation and their perceptions of LLS use?**

Hypothesis Three: The relationship between heritage students' motivation and their perceptions of LLS use is different from that of non-heritage students' motivation and their perceptions of LLS use.

### **6.5.1 Students' Motivations in Studying Chinese**

First let us look at students' motivations in studying Chinese. In the current study, these were divided into two groups: intrinsic and extrinsic motivation. Many different definitions for the terms have been offered (Benabou and Tirole 2003; Carreira 2005; Ryan and Deci 2000). As mentioned in Section 1.4, in the current study, we refer to "Intrinsic Motivation" as internalized values deriving from a student him/herself that motivate him/her to study the Chinese language, for instance, "*interest in Chinese culture*"; while "Extrinsic Motivation" is used to refer to factors external to a student, that motivate him/her to study the Chinese language, for example, "*studying Chinese is useful when travelling*". Question No. 15 in the Background Questionnaire lists 11 reasons for studying Chinese. According to our working definitions, Item QA151, QA156, QA157, QA158, QA1510, and QA1511 were grouped into Intrinsic Motivation, other five items, QA152, QA153, QA154, QA155 and QA159 were grouped into Extrinsic Motivation (please refer to Appendix B)<sup>36</sup>.

Participants were asked to list eight reasons for studying Chinese in order of importance. They were asked to write '1' if the reason was the most important, write '2' if the reason was the second most important, and write '3' if the reason was the third most important, and so on. The participants were also asked to provide other motivational reasons, if such existed, in the order of the importance in QA1512. As the additional reasons provided by the participants all fell into one of the 11 reasons already listed, the statistical analysis on the motivations in studying Chinese therefore was based on the 11 items dealing with reasons. In addition, because lower

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<sup>36</sup> Note: thereafter QA, QB, QC stand for Questionnaire Part A, Questionnaire Part B, and Questionnaire Part C. 'QA151' stands for the first item of question no. 15, in Questionnaire Part A. 'QA152' stands for the second item of question no. 15, in Questionnaire Part A... 'QA1512' stands for the twelfth item of question no. 15, in Questionnaire Part A.

numbers signified a higher degree of importance, the lower the mean score of an item, the more important it was as a reason for motivating language study.

The descriptive statistical analysis shows that the top four reasons for Chinese students as a whole were: “*Mandarin Chinese is interesting*”; “*to get a better job*”; “*useful when travelling*”; and “*interest in Chinese culture*”. The fifth most important reason was “*for personal satisfaction*”; the sixth reason was “*parents or friends’ suggestion or influence*”; the seventh was “*to watch Chinese films and read Chinese literature*”; the eighth was “*to communicate better with family and friends*” (see the Table 6.13).

**Table 6.13: Descriptive Statistics for Motivations in Studying Chinese in General**

	Rank	<i>M</i>	<i>SD</i>
QA151. Mandarin Chinese is interesting	1	4.40	3.01
QA152. Useful when travelling	3	4.71	2.61
QA153. To get a better job	2	4.58	3.15
QA154. Parents/friends' suggestion/influence	6	6.43	2.68
QA155. To communicate better with family/friends	8	7.05	2.70
QA156. To watch Chinese films and dread Chinese literature	7	6.99	2.10
QA157. Interest in Chinese culture	4	5.23	2.66
QA158. To learn about my original culture and language roots	10	7.75	2.31
QA159. To fulfil a language requirement	9	7.31	2.32
QA1510. For personal satisfaction	5	5.55	2.63
QA1511. For a relationship with a Chinese Person	11	7.94	2.07

*NB: Please see Item 15, in Questionnaire A, Appendix B.*

Among the heritage Chinese students, the top four reasons for them to studying Chinese were: “*Mandarin Chinese is interesting*”; “*interest in Chinese culture*”; “*to get a better job*”; and “*useful when travelling*” (see Table 6.12). Among the non-heritage Chinese students, the top four reasons for studying Chinese were: “*to get a better job*”; “*useful when travelling*”; “*Mandarin Chinese is interesting*”; and “*to communicate better with family/friends*” (see Table 6.14).

**Table 6.14: Descriptive Statistics on Heritage and Non-Heritage Students' Motivations in Studying Chinese**

	Heritage Group			Non-Heritage Group		
	Rank	<i>M</i>	<i>SD</i>	Rank	<i>M</i>	<i>SD</i>
QA151. Mandarin Chinese is interesting	1	3.60	2.76	3	5.37	3.01
QA152. Useful when travelling	4	4.54	2.43	2	4.92	2.80
QA153. To get a better job	3	4.52	3.08	1	4.64	3.23
QA154. Parents/friends' suggestion/influence	6	6.88	2.44	5	5.89	2.86
QA155. To communicate better with family/friends	10	8.16	1.81	4	5.69	2.96
QA156. To watch Chinese films and read Chinese literature	7	7.04	1.95	9	6.92	2.27
QA157. Interest in Chinese culture	2	4.44	2.48	6	6.19	2.57
QA158. To learn about my original culture and language roots	11	8.70	1.02	8	6.59	2.85
QA159. To fulfil a language requirement	8	7.30	2.19	10	7.31	2.47
QA1510. For personal satisfaction	5	4.90	2.48	7	6.33	2.59
QA1511. For a relationship with a Chinese Person	9	8.03	1.99	11	7.83	2.17

The independent t-test shows that heritage students had significantly stronger intrinsic motivations in learning Chinese (CHL students:  $M = 1.39$ ,  $SD = .50$ ; NCHL students:  $M = 1.55$ ,  $SD = .49$ ), whereas non-heritage students had significantly stronger extrinsic motivations (CHL students:  $M = 1.49$ ,  $SD = .50$ ; NCHL students:  $M = 1.28$ ,  $SD = .45$ ). We have known that the lower the students' score in their motivational item, the higher their motivation (see the earlier part of this Section). The p-values for the intrinsic and extrinsic motivation between the two groups were .006 and .001, respectively (all *sig.* < .01) (see Table 6.15).

**Table 6.15: Heritage and Non-Heritage Students' Motivations in Studying Chinese**

	Group	<i>n</i>	<i>M</i>	<i>SD</i>	<i>Sig.</i> (2-tailed)
Intrinsic Motivation	Non-Heritage	142	1.55	.49	.006
	Heritage	117	1.39	.50	
Extrinsic Motivation	Non-Heritage	142	1.28	.45	.001
	Heritage	117	1.49	.50	

*NB: see the earlier part of this Section for the items grouped into the category of Intrinsic and Extrinsic Motivation*

### **6.5.2 Correlations between Motivation and LLS**

A Pearson product-moment correlation coefficient was carried out to examine the relationship between students' motivation and the six major strategy factors measured by the LLS questionnaire. Tanaka and Ellis (2003) and Yang (1999) employed the same methods in their studies. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity<sup>37</sup>.

For the heritage Chinese students group, intrinsic motivation was significantly correlated with their fifth factor of learning strategy – compensation and affective strategies ( $r = .27, n = 117, p < .01$ ) (see Table 6.16), although the correlation was small ( $r = .27$ ). As we used factors derived from factor analyses, which already associated related factor items together for this analysis, we did not expect a large correlation<sup>38</sup>.

<sup>37</sup> Techniquely, homoscedasticity means: “The variability in scores for variable X should be similar at all values of variable Y” (Pallent 2005, p. 118).

<sup>38</sup> Same reason applies when similar results occur later in this study.

**Table 6.16: CHL Students' Motivation and LLS (Using Factors Derived from Factor Analysis)**

	1	2	3	4	5	6	7	8
1	1							
2	.08	1						
3	.10	.02	1					
4	.14	.03	.16	1				
5	.07	.02	.15	.02	1			
6	.12	.01	.07	.01	.17	1		
7	.27**	.12	.09	.14	.05	.03	1	
8	.11	.01	.01	.34**	.07	.15	.01	1

\*\**p* < .01 (2-tailed); \**p* < .05 (2-tailed)

1 = *Intrinsic motivation*

2 = *Extrinsic motivation*

3 = *Factor 1 of LLS, i.e. memory strategies,*

4 = *Factor 2 of LLS, i.e. formal oral practice strategies,*

5 = *Factor 3 of LLS, i.e. cognitive strategies,*

6 = *Factor 4 of LLS, i.e. metacognitive strategies,*

7 = *Factor 5 of LLS, i.e. compensation and affective strategies,*

8 = *Factor 6 of LLS, i.e. social strategies*

*r* = .10 to *r* = .29 or *r* = -.10 to *r* = -.29 *small*; *r* = .30 to *r* = .49 *r* = -.30 to *r* = -.49 *medium*;

*r* = .50 to *r* = 1.0 or *r* = -.50 to *r* = -1.0 *large*

For the non-heritage Chinese students group, the students' intrinsic motivation was significantly correlated with their sixth factor of learning strategy – memory strategies ( $r = .17, n = 142, p < .05$ ), and their extrinsic motivation was significantly correlated with their second factor of LLS – social strategies ( $r = .20, n = 142, p < .05$ ), and their fifth factor of LLS – metacognitive strategies ( $r = .19, n = 142, p < .05$ ) (see Table 6.17).

**Table 6.17: Non-Heritage Chinese Students' Motivation and LLS (Using Factors Derived from Factor Analysis)**

	1	2	3	4	5	6	7	8
1	1							
2	.26**	1						
3	.03	.01	1					
4	.14	.20*	.00	1				
5	.02	.07	.09	.22**	1			
6	.04	.03	.07	.14	.07	1		
7	.10	.19*	.20*	.01	.09	.05	1	
8	.17*	.09	.13	.13	.06	.26**	.02	1

\*\**p* < .01 (2-tailed); \**p* < .05 (2-tailed)

1 = Intrinsic motivation

2 = Extrinsic motivation

3 = Factor 1 of LLS, i.e. compensation and affective strategies

4 = Factor 2 of LLS, i.e. social strategies,

5 = Factor 3 of LLS, i.e. cognitive strategies,

6 = Factor 4 of LLS, i.e. functional practice strategies,

7 = Factor 5 of LLS, i.e. metacognitive strategies,

8 = Factor 6 of LLS, i.e. memory strategies

*r* = .10 to *r* = .29 or *r* = -.10 to *r* = -.29 small; *r* = .30 to *r* = .49 *r* = -.30 to *r* = -.49 medium; *r* = .50 to *r* = 1.0 or *r* = -.50 to *r* = -1.0 large

According to the above analyses and results, Hypothesis Three was confirmed: The relationship between heritage Chinese students' motivation and their perceptions of LLS use is different from that of non-heritage Chinese students' motivation and their perceptions of LLS use. The heritage Chinese students' intrinsic motivation was significantly correlated with their fifth factor of learning strategy – compensation and affective strategies; whereas NCHL students' intrinsic motivation was significantly correlated with their sixth factor of learning strategy – memory strategies, and their extrinsic motivation was significantly correlated with their second factor of LLS – social strategies, and their fifth factor of LLS – metacognitive strategies.

### 6.5.3 Discussion of the Results from Research Question Three

The current study revealed that the top four reasons for CHL students to studying Chinese (in descending order) were: “Mandarin Chinese is interesting” (intrinsic motivation); “interest in Chinese culture” (intrinsic motivation); “to get a better job”



(extrinsic motivation); and “*useful when travelling*” (extrinsic motivation). Whereas the top four reasons for non-heritage Chinese students’ studying Chinese (in descending order) were: “*to get a better job*” (extrinsic motivation); “*useful when travelling*” (extrinsic motivation); “*Mandarin Chinese is interesting*” (intrinsic motivation); and “*to communicate better with family/friends*” (extrinsic motivation). However, heritage Chinese students showed significantly stronger intrinsic motivation, and non-heritage Chinese students showed significantly stronger extrinsic motivation in studying Mandarin Chinese language. The p-values for the intrinsic motivation and for the extrinsic motivation between the two groups were .006 and .001, respectively all at <.01 level. The reason for this difference could be attributed to CHL students’ cultural backgrounds as argued by Lu and Li (2008): “*their [heritage Chinese students] cultural backgrounds already enable them to have the intrinsic motivation to learn the language*” (p.101).

The correlation analyses suggested that the relationship between CHL students’ motivation in learning Chinese and their perceptions of LLS use were different from that of NCHL students: heritage Chinese students’ intrinsic motivation was significantly correlated with their fifth factor of LLS – affective and compensation strategies ( $r = .27, n = 117, p < .01$ ) (see Table 6.16); whereas non-heritage Chinese students’ intrinsic motivation was significantly correlated with their sixth factor of LLS – memory strategies ( $r = .17, n = 142, p < .05$ ), in addition, NCHL students’ extrinsic motivation was also significantly correlated with their second factor of LLS – social strategies ( $r = .20, n = 142, p < .05$ ), and their fifth factor of LLS – metacognitive strategies ( $r = .19, n = 142, p < .05$ ) (see Table 6.17).

Heritage Chinese students’ intrinsic motivation was significantly correlated with their compensation and affective strategies. Presumably fascination about the Chinese language (CHL students’ top reason to study Chinese) and Chinese culture (CHL students’ second top reason to study Chinese), increased their courage to make them “*try to relax whenever they feel afraid of using Chinese*” (affective strategies), and to make guesses and use gestures, or make up a word (compensation strategies) in order to converse in Chinese when they came across a word they did not know. In another word, if they believed they could learn more about the Chinese language and

understand more about the Chinese culture through the use of Chinese language, they might lower their anxiety levels in their Chinese language study and tried to use the language. Vis -a- vis might also be possible.

As to the non-heritage Chinese students, their intrinsic motivation for example, "*Mandarin Chinese is interesting*", which was the third top reason for them to study Chinese, might drive them to use social strategy 45 "*If I do not understand something in Chinese, I ask the other person to slow down or say it again*", social strategy 46 "*I ask Chinese speaker to correct me when I talk*", social strategy 47 "*I practice Chinese with other students*", social strategy 48 "*I ask for help from Chinese speakers*", and social strategy 50 "*I try to learn about the culture of Chinese speakers*". The NCHL students reported that these strategies were their most preferred strategies with all the mean scores larger than 3.70. Again, the reverse might also be possible, as the correlation analysis does not suggest the cause and effect.

Likewise, non-heritage students' extrinsic motivation for instance, "*to get a job in China*" (NCHL students' top reason to study Chinese), "*to travel in China*" (NCHL students' second top reason to study Chinese), and "*to communicate better with friends*" (NCHL students' fourth top reason to study Chinese), made them to "*have clear goals for improving my Chinese skills*", and to "*think about my progress in learning Chinese*", and encouraged them "*to find as many ways as I can to use my Mandarin Chinese*", and "*to look for people I can talk to in Chinese*", and "*to look for opportunities to read as much as possible in Chinese*". Vis-à-vis might also be possible, as no cause and effect relationship can be detected by correlational analysis (Larson-Hall 2010, p. 149).

## **6.6 Results of Research Question Four**

**Research Question Four: Is the relationship between heritage Chinese students' Language Learning Beliefs and their perceptions of LLS use different from that of non-heritage Chinese students' Language Learning Beliefs and their**

### **perceptions of LLS use?**

Hypothesis Four: The relationship between heritage Chinese students' LLB and their perceptions of LLS use is different from that of non-heritage Chinese students' LLB and their perceptions of LLS use.

#### **6.6.1 Students' Language Learning Beliefs**

Before looking at the relationship between students' Language Learning Beliefs (LLB) and their perceptions of LLS use, we firstly examined their language learning beliefs. Descriptive statistics and independent-samples t-test were computed for Questionnaire Two adapted from Horwitz's (1987) 34 items of BALLI (see Section 2.2.4, Section 5.4.2, and Appendix B), in order to obtain the mean scores, standard deviation, and to compare the mean scores on CHL and NCHL students LLB. The participants' responses on their language learning beliefs were grouped into five major categories, including: Foreign Language Aptitude (Item QB1, 2, 6, 10, 11, 16, 19, 30, 33); The Difficulty of Language Learning (Item QB3, 4, 5, 15, 25, 34); The Nature of Language Learning (Item QB8, 12, 17, 23, 27, 28); Learning and Communication Strategies (Item QB7, 9, 13, 14, 18, 21, 22, 26); Motivations and Expectation (Item QB20, 24, 29, 31, 32) (please see Section 2.2.4 for the related literature review).

The independent-samples t-test shows significant differences between heritage and non-heritage students' LLB, as shown in Table 6.18. Heritage students had stronger beliefs regarding: the difficulty of language learning and the nature of language learning, and learning and communication strategy; whereas the non-heritage students had stronger beliefs with respect to foreign language aptitude. The p-values for the two groups' students beliefs regarding foreign language aptitude, the difficulty of language learning, the nature of language learning, and learning and communication strategies were .035 ( $p < .05$ ); .023 ( $p < .05$ ); .011 ( $p < .05$ ); and .025 ( $p < .05$ ), respectively. However, no significant difference was found between heritage students and non-heritage students' beliefs with respect to motivations and expectation (see Table 6.18).

**Table 6.18: Comparison of Language Learning Beliefs between the Two Groups**

	GP	<i>n</i>	<i>M</i>	<i>SD</i>	<i>Sig.</i> (2-tailed)
Foreign Language Aptitude	NH	142	2.77	.36	.035
	H	117	2.68	.35	
The Difficulty of Language Learning	NH	142	2.43	.33	.023
	H	117	2.54	.44	
The Nature of Language Learning	NH	142	2.42	.59	.011
	H	116	2.54	.51	
Learning and Communication Strategy	NH	142	2.52	.38	.025
	H	117	2.62	.47	
Motivations and Expectation	NH	142	2.20	.57	.614
	H	116	2.18	.70	

*NB: GP=Group; NH=Non-Heritage Chinese Students; H=Heritage Chinese Students*

### **6.6.2 Factor Analyses on Students' LLB**

Factor analyses (principle component analysis) of the BALLI items were performed in order to explore the internal structure and produce statistical meaningful categories of the BALLI and thus to better understand heritage and non-heritage students' beliefs on Chinese language learning. This technique was also used by Yang (1999), Tanaka and Ellis (2003), Nikitina and Furuoka (2006), Diab (2006), and Sakui and Gaies (1999) for their LLB research. Correlation matrix, factor extraction, and varimax rotation procedures were gone through for the 34-items of BALLI. Screen test and the eigenvalues of greater than 1.0 were used for extracting the factors.

Prior to further analysis, Kaiser-Meyer-Olkin (KMO) sampling adequacy test and Bartlett's Test of Sphericity were conducted to see whether factor analysis was suitable for BALLI. Table 6.19 presents the results from these two tests. The KMO sampling adequacy test statistic for the non-heritage group and heritage group were .54 and .48, respectively. The KMO for the whole group appeared to meet the requirement of recommended value of .5 for a good factor analysis, the KMO for the

non-heritage and heritage students group however could just reach the threshold value. Bartlett's tests for Sphericity statistic for the three groups were significant at .001 levels. These results indicated that the null hypothesis which states that the correlation matrix is an identity-matrix is rejected. Therefore, these results support the validity of the factor analysis usage on LLB as a whole group, non-heritage Chinese students group and heritage Chinese students group in this study.

**Table 6.19: KMO and Bartlett's Tests for Factor Analysis of BALLI**

	NH	H
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.54	.48
Bartlett's Test of Sphericity	.000	.000

*Note: NH=Non-Heritage Group; H=Heritage Group*

According to the principal-component analysis, seven factors with eigenvalues of one were obtained. Screen plot procedure was conducted to select factors that significantly represented the total variance. The screen test indicated four factors representing the data most appropriately. The reliability of each factor for the whole group, the non-heritage group, and for the heritage group was examined using Cronbach's alpha. Table 6.20 below presents a summary of the results of the factor analysis of BALLI.

**Table 6. 20: Factor Analysis – BALLI (Questionnaire 2 in Appendix B)**

	Factors	Eigenvalue	% of Variance	Cumulative %
NH group	1 Motivation and strategy in learning Chinese ( $a = .69$ )	3.18	9.35	9.35
	2 Nature and aptitude of language learning ( $a = .54$ )	2.31	6.79	16.14
	3 Perceived expectation of learning Chinese ( $a = .54$ )	2.14	6.29	22.43
	4 Difficulty of learning Chinese ( $a = .42$ )	2.04	6.01	28.43
H group	1 Motivation and confidence on learning Chinese ( $a = .68$ )	2.97	8.74	8.74
	2 Aptitude of learning Chinese ( $a = .36$ )	2.11	6.20	14.94
	3 Characteristic of learning Chinese ( $a = .35$ )	1.96	5.77	20.71
	4 Nature and strategy in learning Chinese ( $a = .40$ )	1.83	5.38	26.09

*NB: NH=Non-Heritage Chinese Students; H=Heritage Chinese Students*

As can be seen from Table 6.20, the four factors accounted for 28.43% and 26.09% of the total variance for the non-heritage group and for the heritage group, with alphas ranging from .35 to .69 (see Section 6.6.3 for the discussion). The factor analysis indicated that the internal structure of CHL and NCHL students' LLB were different (please refer to the Section below and Appendix C), therefore the factor names assigned for each group were different.

In the heritage Chinese students group (see Table in the Appendix C), factor 1 can be described as beliefs on motivation and confidence on learning Chinese, which included item 32, 29, 31, 24, 30, 20, 14, 33, and item 10. Factor 2 consisted of six items (item 34, 19, 9, 6, 2, 15), and was named as beliefs on aptitude of learning Chinese. Factor 3 included items 11, 23, 4 and item 26, which was named as beliefs on characteristics of learning Chinese. Factor 4 consisted of item 7, 27, 28, 13, 5, and item 16, which was named as beliefs on nature and strategy in learning Chinese.

In the non-heritage Chinese students group (see Table in the Appendix C), factor 1 was named as beliefs on motivation and strategy in learning Chinese, which consisted of nine items – item 32, 24, 18, 12, 7, 8, 26, 13, and item 5. Factor 2 included item 28, 20, 17, 6, 30, 15, and item 23, which was named as beliefs on nature and aptitude of language learning. Factor 3 was named as beliefs on perceived expectation of learning Chinese, including item 3, 4, 27, and item 29. Factor 4 was named as beliefs on difficulty of learning Chinese, consisting of item 34, 19 and item 21.

### **6.6.3 Correlation between Students' LLB and LLS**

Pearson Product-moment Correlation Analyses were performed to examine the relationship between students' four factors of LLB and their six factors of LLS. This method was also employed by Yang (1999) who examined the relationship between the four belief factors and the six strategy factors in her study.

Table 6.21 suggested that there was a medium significant correlation between heritage Chinese students third factor of LLB – beliefs on characteristic of studying Chinese and their second factor of LLS – formal oral practice strategies ( $r = .35, n = 117, p < .01$ ), and small significant correlation between heritage Chinese students third factor of LLB – beliefs on characteristic of studying Chinese and their fifth factor of LLS – compensation and affective strategies ( $r = .20, n = 117, p < .05$ ).

**Table 6.21. Correlation between Heritage Chinese Students LLB and LLS (Using Factors Derived from Factor Analysis)**

	1	2	3	4	5	6	7	8	9	10
1	1									
2	.20*	1								
3	.13	.06	1							
4	.05	.01	.01	1						
5	.08	.07	.02	.06	1					
6	.11	.00	.35**	.08	.16	1				
7	.13	.08	.10	.04	.15	.02	1			
8	.08	.08	.12	.06	.07	.01	.17	1		
9	.16	.05	.20*	.06	.09	.14	.05	.03	1	
10	.01	.02	.07	.06	.01	.34**	.07	.15	.00	1

\*\**p* < .01 (2-tailed); \**p* < .05 (2-tailed)

1 = Factor 1 of LLB, i.e. beliefs on motivation and competence on learning Chinese,

2 = Factor 2 of LLB, i.e. beliefs on aptitude of studying Chinese,

3 = Factor 3 of LLB, i.e. beliefs on characteristic of studying Chinese,

4 = Factor 4 of LLB, i.e. beliefs on nature and strategies in studying Chinese,

5 = Factor 1 of LLS, i.e. memory strategies,

6 = Factor 2 of LLS, i.e. formal oral practice strategies,

7 = Factor 3 of LLS, i.e. cognitive strategies,

8 = Factor 4 of LLS, i.e. metacognitive strategies,

9 = Factor 5 of LLS, i.e. compensation and affective strategies,

10 = Factor 6 of LLS, i.e. social strategies

*r* = .10 to *r* = .29 or *r* = -.10 to *r* = -.29 small; *r* = .30 to *r* = .49 *r* = -.30 to *r* = -.49 medium;

*r* = .50 to *r* = 1.0 or *r* = -.50 to *r* = -1.0 large

Table 6.22 below shows that there was a small significant correlation between non-heritage Chinese students' first factor of LLB, i.e. beliefs on motivation and strategy in learning Chinese and their first factor of LLS – compensation and affective strategies (*r* = .19, *n* = 142, *p* < .05), and between first of factor of LLB and their fourth factor of LLS – functional practice strategies (*r* = .22, *n* = 142, *p* < .01). In addition, there was also small significant correlation between non-heritage Chinese students third factor of LLB – beliefs on perceived expectation of learning Chinese and their fourth factor of LLS – functional practice strategies (*r* = .19, *n* = 142, *p* < .05), and between non-heritage Chinese students third factor of LLB – beliefs on perceived expectation of learning Chinese and their fifth factor of LLS – metacognitive strategies (*r* = .19, *n* = 142, *p* < .05).



**Table 6.22: Correlation between Non-Heritage Chinese Students LLB and LLS (Using Factors Derived from Factor Analysis)**

	1	2	3	4	5	6	7	8	9	10
1	1									
2	.13	1								
3	.16	.09	1							
4	.03	.06	.21*	1						
5	.19*	.02	.04	.09	1					
6	.13	.09	.01	.07	.00	1				
7	.09	.13	.02	.01	.09	.22**	1			
8	.22**	.02	.19*	.04	.07	.14	.07	1		
9	.07	.09	.19*	-.06	.20*	.01	.09	.05	1	
10	.11	.16	.05	.02	.13	.13	.06	.26**	.02	1

\*\**p* < .01 (2-tailed); \**p* < .05 (2-tailed)

1 = Factor 1 of LLB, i.e. beliefs on Motivation and strategy in learning Chinese,

2 = Factor 2 of LLB, i.e. beliefs on nature and aptitude in studying Chinese,

3 = Factor 3 of LLB, i.e. beliefs on perceived expectation of learning Chinese,

4 = Factor 4 of LLB i.e. beliefs on difficulty of learning Chinese,

5 = Factor 1 of LLS, i.e. compensation and affective strategies,

6 = Factor 2 of LLS, i.e. social strategies,

7 = Factor 3 of LLS, i.e. cognitive strategies,

8 = Factor 4 of LLS, i.e. functional practice strategies,

9 = Factor 5 of LLS, i.e. metacognitive strategies,

10 = Factor 6 of LLS, i.e. memory strategies;

*r* = .10 to *r* = .29 or *r* = -.10 to *r* = -.29 small; *r* = .30 to *r* = .49 *r* = -.30 to *r* = -.49 medium;

*r* = .50 to *r* = 1.0 or *r* = -.50 to *r* = -1.0 large

The above Pearson product-moment correlation analyses of students LLB and LLS using the factors derived from factor analyses confirmed Hypothesis Four: The relationship between heritage Chinese students' LLB and their perceptions of LLS use is different from that of non-heritage Chinese students' LLB and their perceptions of LLS use.

#### **6.6.4 Discussion of the Results from Research Question Four**

In terms of the students' language learning beliefs, heritage students had significantly stronger beliefs regarding the difficulty of learning Chinese language (*p* < .05), the nature of Chinese language learning (*p* < .05), and learning and communication strategy (*p* < .05); whereas non-heritage students had significantly

stronger beliefs regarding Chinese language aptitude ( $p < .05$ ). No significant differences between the two groups were found, however, for beliefs regarding motivations and expectation (see Section 6.6.1).

Ellis (2008) argued that one possibility of what determines learners' beliefs about language learning is that beliefs are determined, while other general factors such as personality and cognitive style might also significantly contribute to shaping learners' beliefs (p. 10). Other studies, Tanaka and Ellis' (2003), for example, maintained that learner beliefs are situation-specific, it varies according to a number of factors such as age, cultural background, learning environment, stage of learning, and target language.

Our results revealed that CHL students tended to believe that Chinese was less difficult than did NCHL students ( $M_s = 2.54; 2.43$  for CHL and NCHL students, respectively), and they had more confidence in learning to speak Mandarin very well. This was further demonstrated in the qualitative study. As shown in Section 7.3, Mary, a CHL student reported: *"because I already know Cantonese, that's [learning Chinese characters] not that difficult. Even with the grammar, it's very similar to Cantonese, so I know which order is needed"*.

In addition, CHL students believed more strongly that it was necessary to know about Chinese culture in order to learn to speak Mandarin Chinese well. Furthermore, they believed it was necessary to learn Mandarin in a Mandarin Chinese speaking environment, and they believed more strongly that they enjoyed practicing Chinese with Chinese people that they met. These beliefs can be explained in terms of CHL students' higher intrinsic motivation and their desire to know more about their cultural and language roots; therefore they wanted to practise Chinese more, or vis-à-vis. As can be seen later in the qualitative study in Section 7.5, Luke, a CHL student reflected: *"The more I wanted to know Chinese culture, the more I want to study. I try to make time to study."*

However, NCHL students believed strongly that, for example, some people had special talents for learning Chinese language, as they tended to think Chinese was a difficult language to learn. For most NCHL students, Chinese was a difficult language. Typological and orthographic differences between Chinese and English make the learning of Chinese peculiarly difficult for NCHL students. As can be seen in Section 7.3, Dennis, a NCHL student reported:

*Yes. [Chinese is a] Very different language from European language. There is separate system, sound was written in pinyin and writing, nothing similar to English and other European language. It's difficult and challenging... Characters are the most difficult.*

Therefore, for this reason, they may come to believe that special abilities were needed for learning Chinese.

The factor analyses indicated the internal structure of CHL and NCH students' LLB were different. The four factors accounted for 28.43% and 26.09% of the total variance for non-heritage group and for heritage group, and alphas ranging from .35 to .69 (see Section 6.6.2). This suggested that the four factors could not account very strongly for differences in learners' belief systems although these factors were distinct dimensions in these belief systems. Tanaka and Ellis (2003) also found that the three factors only accounted for 22% and 30% for the accumulated variance in learners' responses in the two administrations of the instrument (p. 78). In addition, the reliability obtained for the items relating to the separate factors were low. Other studies, such as Sakui and Gaies (1999), Tanaka and Ellis (2003), and Yang (1999) all reported low reliability for learner belief questions. Sakui and Gaies (1999) reported alphas ranging from .46 to .75 for the four factors measured by their questionnaire administered to a sample of 1296 Japanese university students. Tanaka and Ellis (2003) reported alphas ranging from .29 to .80 for the three factors that emerged from a factor analysis of the 27-item questionnaire arrived by learner belief questionnaires such as those Horwitz (1988, 1999), and Yang (1999) administered to 505 Japanese university students. Yang (1999) reported alphas ranging from .52 to .71 for the four factors that emerged from a factor analysis of the 35-item BALLI

administered to 505 Taiwanese university students. The alphas obtained in this study favorably compare with those other similar studies mentioned above, especially to those of Tanaka and Ellis (2003). Tanaka and Ellis (*ibid.*) argued that the reason may be due to that learners may hold contradictory beliefs and learners' belief systems are not homogeneous (p. 78). Table 6.23 below summarizes some factor analyses from previous LLB studies.

**Table 6.23: Summarization of Factor Analyses from Previous LLB Studies**

Author/s	Participants	Instrument	Factors
Yang (1999)	505 university students in Taiwan	34-item of BALLI (Horwitz 1987)	F1: Self-efficacy and expectation about learning English; F2: Perceived value and nature of learning spoken English; F3: Beliefs about foreign language aptitude; F4: Beliefs about formal structural studies. (NB: 1. Items with factor loadings below .30 in the BALLI were excluded from the factor analysis. 2. The cumulative percentage of the total variance for the six factors was not suggested).
Nikitina and Furuoka (2006)	107 Russian language learning students at a university in Malaysia	34 items of BALLI (Horwitz 1988)	F1: Motivation; F2: Aptitude; F3: Strategy; F4: Ease of learning. (NB: 1. Items with factor loadings below .60 in the BALLI were excluded from the factor analysis. 2. The cumulative percentage of the total variance for the six factors was 63.77%).
Tanaka and Ellis (2003)	166 students at a university in Japan	27 items adapted from Horwitz (1988, 1999), Rifkin (2000), Wenden (1986), and Yang (1992)	Factors for Time 1 (before studying abroad) and (Time 2 after studying abroad): F1: Analytic learning; F2: Experiential learning; F3: Self-efficacy and confidence (NB: 1. Items with factor loadings below .40 were excluded from the factor analysis. 2. The cumulative percentages of the total variance for the six factors in Time 1 and 2 were 22.39% and 30.02%, respectively).

*Note: F=Factor*

Our findings (see Table 6.21) also suggested that there was a medium significant correlation between heritage Chinese students third factor of LLB – beliefs on characteristic of studying Chinese and their second factor of LLS – formal oral practice strategies ( $r = .35, n = 117, p < .01$ ), and there was a small significant correlation between heritage Chinese students third factor of LLB – beliefs on characteristics of studying Chinese and their fifth factor of LLS – compensation and affective strategies ( $r = .20, n = 117, p < .05$ ). The heritage Chinese students tended not to think Chinese was as difficult (the third factor of LLB), which might encourage them to use the language: to start conversation, and to use the Chinese words in different ways (the second factor of LLS); and when they did not know a word they made up new words (the fifth factor of LLS). All these suggest that the stronger the heritage Chinese students' beliefs on characteristic of studying Chinese, the more formal oral practice strategies they used; and the stronger their beliefs on characteristic of studying Chinese, the more compensation and affective strategies the heritage Chinese students used, or vis-a-vis.

In addition, our results (see Table 6.22) also indicated that there was a small significant correlation between non-heritage Chinese students' first factor of LLB, i.e. beliefs on motivation and strategy in learning Chinese and their first factor of LLS – compensation and affective strategies ( $r = .19, n = 142, p < .05$ ), and between first of factor of LLB – beliefs on motivation and strategy in learning Chinese and their fourth factor of LLS – functional practice strategies ( $r = .22, n = 142, p < .01$ ). These suggest that the stronger the non-heritage Chinese students' beliefs on motivation and strategy in learning Chinese, the more compensation and affective strategies they used; and the stronger their beliefs on motivation and strategy in learning Chinese, the more functional practice strategies the non-heritage Chinese students used. For example, the stronger the non-heritage students wanted to have Chinese friends and get to know Chinese people (the first factor of LLB), the more they encouraged themselves to use the language: when they did not know a word, they would try all kinds of means such as guessing, gestures, or making up new words (the first factor of LLS) in order to convey what they wanted to; and likewise the more they paid attention when they heard someone speaking Chinese, and the more they studied the

language proactively, e.g., making plans (the fourth factor of LLS).

Other findings for non-heritage students were: there was a small significant correlation between non-heritage Chinese students third factor of LLB – beliefs on perceived expectation of learning Chinese and their fourth factor of LLS – functional practice strategies ( $r = .19, n = 142, p < .05$ ), and between non-heritage Chinese students third factor of LLB – beliefs on perceived expectation of learning Chinese and their fifth factor of LLS – metacognitive strategies ( $r = .19, n = 142, p < .05$ ). These suggested that the stronger the non-heritage Chinese students' beliefs on perceived expectation of learning Chinese, the more functional practice strategies they used; and the stronger their beliefs on perceived expectation of learning Chinese, the more metacognitive strategies they used. For instance the stronger they wanted to have a better job in China in the future, and the stronger they felt Chinese was different and difficult to learn (the third factor of LLB), the harder they studied, for instance making plans, paying attention to people speaking Chinese (the fourth factor of LLS), and watching out opportunities to practice the language (the fifth factor of LLS).

Our findings revealed different relationships between CHL students' LLB and LLS and that of NCHL students' LLB and LLS; however, like other studies, such as Yang's (1999), our data could not reveal whether the relationship was causative. The relationship might be reciprocal as Hong (2006) argued; in another word the students' LLB might affect their perceptions of LLS use, or vice versa, or there may be an undetected factor underlying both. We agree, and we think it will be interesting to examine this issue further. Maybe it is just like the relationship between chicken and egg; no one knows which came first.

## **6.7 Results of Research Question Five**

**Research Question Five: Do other variables such as students' gender, age and mother tongue have the same effect on heritage and non-heritage Chinese students' perceptions of LLS use?**

Hypothesis Five: Other variables, such as students' gender, age and mother tongue have different effects on heritage and non-heritage Chinese students' perceptions of LLS use.

### **6.7.1 Independent T-Test and ANOVAs**

In order to answer Research Question Five, an independent t-test was employed to compare the mean scores of CHL and NCHL students' six factors of LLS use and gender, and one-way analyses of variance (ANOVAs) was employed to compare the mean scores of CHL and NCHL students' six factors of LLS use across their age and mother tongue. Post-hoc multiple comparison tests were conducted when significant differences were indicated to identify where the detected differences occurred. Other researchers, such as Oxford and Nyikos (1989) used the same method to compare the mean scores of SILL factor in order to determine which variable (gender, course status, motivation level and so on) had the greater influence on the choice of learning strategies.

The independent t-test revealed that there was no significant difference between male and female CHL students' perceptions of LLS use ( $p > .05$ ), and between male and female NCHL students' perceptions of LLS use ( $p > .05$ ).

ANOVAs were then used to compare the mean scores of CHL and NCHL students' LLS use to detect whether there were any differences between the students' six factors of their perceptions of LLS use across students' age and mother tongue. The results obtained through ANOVAs indicated that there were significant differences between NCHL students' factor 1 of LLS – compensation and affective strategies [ $F(3, 138) = 15.71, p = .001$ ] across their age groups at the  $p < .01$  level, with a large effect size of .25 (see Table 6.24); and between NCHL students' factor 6 of LLS – memory strategies [ $F(3, 138) = 3.05, p = .031$ ] across their age groups at the  $p < .05$  level, with a medium effect size of .06 (see Table 6.24). In addition, there was a significant difference between CHL students' factor 3 of LLS – cognitive strategies [ $F(3, 112) = 2.75, p = .046$ ] across their age groups at the  $p < .05$  level with a medium effect size of .07 (ibid). However, ANOVAs indicated no significant



differences between CHL and NCHL students' other factors (derived from factor analyses of LLS) across their age groups.

**Table 6.24: ANOVA for LLS and Age<sup>39</sup>**

			Sum of Squares	df	Mean Square	F	Sig.	Effect Size (Eta)
NH	FAC1LSN	Between Groups	24.64	3	8.21	15.71	.001	.25
		Within Groups	72.16	138	.52			
		Total	96.80	141				
	FAC6LSN	Between Groups	2.00	3	.67	3.05	.031	.06
		Within Groups	30.16	138	.22			
		Total	32.16	141				
H	FAC3LSH	Between Groups	2.08	3	.69	2.75	.046	.07
		Within Groups	28.27	112	.25			
		Total	30.35	115				

*Note: H = Heritage Chinese Students Group, NH = Non-Heritage Chinese Students Group; Effect size ranged from 0 to 1, .01 = small effect; .06 = moderate effect and .14 = large effect FAC1LSN = NCHL students' factor 1 of LLS – compensation and affective strategies; FAC6LSN = NCHL students' factor 6 of LLS – memory strategies; FAC3LSH = CHL students' factor 3 of LLS – cognitive strategies*

To explore further, post-hoc multiple comparison tests were conducted to identify where the above detected differences occurred. The results in Table 6.25 reveal that there was a significant difference in the use of compensation and affective strategies (factor 1 of LLS) between under 17, i.e. 15 – 17 years old group of NCHL students and 18 – 25 years old NCHL students group at a significant level of  $p < .05$ . The mean difference (*Sig.*.001) was -.79 (*ibid*). In addition, there was significant difference in the use of compensation and affective strategies between under 17, i.e. 15 – 17 years old group of NCHL students and 26 – 40 years old group NCHL students at a significant level of  $p < .05$ . The mean difference (*Sig.*.008) was -.74 (*ibid*). Furthermore, there was a significant difference in the use of this group of strategies between 18 – 25 years old NCHL students and over 40 years old NCHL students at a significant level of  $p < .05$ . The mean difference (*Sig.*.001) was 1.16 (*ibid*). There was also a significant difference between 26 – 40 years old group and

<sup>39</sup> For the space limit, only those significant results were presented, i.e. insignificant results were not presented.

over 40 years old group NCHL students at a significant level of  $p < .05$ , with the mean difference of 1.11 (*Sig.*.005). However, no significant difference was found between memory strategies (factor 6 of LLS) across non-heritage students' age groups, and no significant differences were detected between cognitive strategies – factor 3 of SILL across heritage Chinese students' age groups.

**Table 6.25: Post-hoc Multiple Comparisons Tests for NCHL Students' Factor One of LLS across Age Groups**

Dependent Variable	(I) Age	(J) Age	Mean Difference (I-J)	Sig.
FAC1LSN	Under 17	18-25	-.79*	.001
		26-40	-.74*	.008
		Over 40	.38	.507
	18-25	Under 17	.79*	.001
		26-40	.051	.996
		Over 40	1.16*	.001
	26-40	Under 17	.74*	.008
		18-25	-.052	.996
		Over 40	1.11*	.005
	Over 40	Under 17	-.38	.507
		18-25	-1.16*	.001
		26-40	-1.11*	.005

\*.  $p < .05$

*FAC1LSN=NCHL students' factor 1 of LLS – compensation and affective strategies*

With regard to students' LLS and their mother tongue, there were significant differences between CHL students' memory strategies-factor 1 of LLS [ $F(4, 112) = 3.43, p = .011$ ] and their mother tongue, at the  $p < .05$  level, with a medium effect size of .11; and their social strategies – factor 6 [ $F(4, 112) = 4.68, p = .002$ ] and their mother tongue at the  $p < .01$  level (see Table 6.26) with a large effect size of .14. However, ANOVAs indicated no significant differences between CHL students' other factors that were derived from factor analyses of LLS and their mother tongue, and no significant differences between NCHL students' any factors that were derived from factor analyses of LLS and their mother tongue.

**Table 6.26: ANOVA for CHL Students' LLS and Their Mother Tongue**

		Sum of Squares	df	Mean Square	F	Sig.	Effect Size (Eta)
FAC1LSH	Between Groups	10.01	4	2.50	3.43	.011	.11
	Within Groups	81.78	112	.73			
	Total	91.79	116				
FAC6 LSH	Between Groups	4.96	4	1.24	4.68	.002	.14
	Within Groups	29.71	112	.27			
	Total	34.67	116				

*Note: Effect size ranged from 0 to 1, .01=small effect; .06=moderate effect and .14=large effect*

*FAC1LSH = CHL students' factor 1 of LLS – memory strategies; FAC6LSH = CHL students' factor 6 of LLS – social strategies*

Further post-hoc multiple comparison tests on CHL students' factor 1 of LLS, i.e. memory strategies and their factor 6, i.e. social strategies across their mother tongue groups indicated that there was a significant difference in the use of memory strategies between other Asian language group of CHL students such as those who spoke Malay and other European language group of CHL students such as those who spoke Polish as their mother tongue at a significant level of  $p < .05$ . The mean difference between these two groups was 2.03 (*Sig.*.006) (see Table 6.27). In addition, there was significant difference in the use of social strategies (factor 6 of SILL for CHL students) between English as mother tongue group of CHL students and other European language group of CHL students such as those who spoke Polish as their mother tongue at a significant level of  $p < .05$  – the mean difference between these two groups was 1.05 (*Sig.*.007) (*ibid*); and between Cantonese and other European as mother tongue groups with the mean difference of .88 (*Sig.*.043) at a significant level of  $p < .05$ ; between Mandarin and other European mother tongue groups with the mean difference of 1.32 at a significant level of  $p < .05$  (*Sig.*.006). However, no significant differences in terms of factor 6 of LLS – social strategies use among English, or Cantonese, or Mandarin as mother tongue groups.

**Table 6. 27: Post-hoc Multiple Comparisons Tests for CHL Students' Factor 1 and Factor 6 of LLS across Mother Tongue Groups**

Dependent Variable	(I) mother tongue	(J) mother tongue	Mean Difference (I-J)	Sig.
FAC1LSH	other European Language	English	1.20	.126
		Cantonese	1.35	.069
		Mandarin	1.36	.198
		other Asian Language	2.03*	.006
FAC6LSH	other European Language	English	-1.05*	.007
		Cantonese	-.87*	.043
		Mandarin	-1.32*	.006
		other Asian Language	-.66	.331

\*.  $p < .05$ ; FAC1LSH = CHL students' factor 1 of LLS – Memory strategies; FAC6LSH = CHL students' factor 6 of LLS – Social strategies

The above results confirmed the Fifth Hypothesis: other variables, such as students' gender, age and mother tongue had different effects on heritage and non-heritage Chinese students' perceptions of LLS use. Although gender had no effect on both CHL and NCHL students' perceptions of LLS, NCHL students' age had an effect on their compensation and affective strategies – factor 1 of NCHL students' LLS (between the four age groups, i.e.: under 17 years old group and 18 – 25 years old group; under 17 years old group and 26 – 40 years old group; 18 – 25 years old group and over 40 years old group; and 26 – 40 years old group and over 40 years old group). In addition, CHL students' mother tongue had impact on their memory strategies – factor 1 of heritage Chinese student's LLS between other European language group and other Asian language group. CHL students' mother tongue also had impact on their social strategies – factor 6 of CHL students' LLS, between other European language group and English group, and between other European language group and Cantonese group, and between other European language group and Mandarin group.

### 6.7.2 Discussion of Results from Research Question Five

This study suggested that CHL and NCHL students' gender differences made no difference to their perceptions of LLS use. This result was consistent with earlier studies, such as Hong (2006), Jiang (2000), Shmais (2003), and Wharton (2000).

However Oxford and Nyikos (1989) found female students used more strategies especially social strategies than did male students. Peacock and Ho (2003) also found that female students used significantly more all six strategy categories than did male students (see earlier Section 2.2.5). Shmais (2003) argued that the discrepant findings in the literature may be due to the students' foreign language levels.

However, in our study, student's age differences did have an effect on their perceptions of LLS use. NCHL students' age had impact on their compensation and affective strategies – factor 1 of NCHL students' perceptions of LLS use. The differences were between the four age groups, i.e.: under 17 years old group and 18 – 25 years old group; under 17 years old group and 26 – 40 years old group; 18 – 25 years old group and over 40 years old group; and 26 – 40 years old group and over 40 years old group. Students who were aged from 18 to 25 years old used more compensation and affective strategies (see Table 6.25) than the other age groups students. In other words, 18 – 25 years old students used strategies such as guessing more often than the other group students: they made up new words, or guessed, or used gestures when they came across a word they did not know, and they might also encourage themselves to speak and tried to overcome the fear of making errors in speaking. In the current study, 18 – 25 years old students were mostly undergraduate students, who studied Chinese more often than other group students. Taking the students from Newcastle University as an example, 18 – 25 years old students were mostly studying their BA in Chinese related programmes with 4 – 5 hours class Chinese studying per week, whereas other age groups were seen more at the evening classes with two hours or fewer class Chinese studying per week. It is natural that the more the students study, the more strategies the students will have to use, including this compensation and affective strategy. Nonetheless this can be further examined in future.

Y. Wu's study (2007) however, reported that older students tended to use compensation and affective strategies less. His explanation was: the younger the students were, the less stable their mood could be, therefore younger students need to use affective strategies to control their emotions such as anxiety, and to encourage

them to study, whereas the older students' mood was relatively stable, the reasons for them to study language were not for living, job, or career, so they do not have to use affective strategies to control their emotions (see Section 2.2.5).

Our study also found that NCHL students' age had an effect on their memory strategies – factor 6 of NCHL students' perceptions of LLS use; and CHL students' age had an effect on their cognitive strategies – factor 3 of CHL students' perceptions of LLS use. However, further post-hoc analyses did not detect where the differences occurred, which suggest the differences were not large.

Furthermore, our data revealed that CHL students' mother tongue had effects on their memory strategies – factor 1 of CHL students' perceptions of LLS use between other European language group and other Asian language group. CHL students' mother tongue also had impact on their social strategies – factor 6 of CHL students' perceptions of LLS use, between other European language group and English group, and between other European language group and Cantonese group, and between other European language group and Mandarin group. However, caution must be paid in that in the current study, among the heritage Chinese students group, the number of students whose mother tongues were other European language were three, only taking about 2.6% of CHL students, and they were all Russian native speakers; and the number of students whose mother tongues were other Asian languages were eight, only taking about 6.8% of CHL students, including four Malay, one Korean, one Taiwanese, and two English and Hakka (please refer to Section 6.1). Therefore the results above need further investigation to verify their generalizability. Nonetheless, from these results one thing that is clear is that there were no significant differences with regard to CHL students' perceptions of LLS use among English, Cantonese, or Mandarin as mother tongue group, which suggest that mother tongue did not have effect on students' perceptions of LLS, when they were English native speakers, or Cantonese speakers, or Mandarin speakers.

## **6.8 Results of Research Question Six**

### **Research Question Six is: Is “proficiency level” a good predictor to predict heritage and non-heritage Chinese students’ perceptions of LLS use?**

Hypothesis Six: Despite the possible impact of proficiency level on the students’ perceptions of LLS use, it is not necessary a good predictor of the students’ LLS use. Other variables, such as motivation, may also be good predictors of heritage and non-heritage Chinese students’ perceptions of LLS use.

The preceding Sections confirmed that heritage and non-heritage Chinese students’ perceptions of LLS were different. In addition, earlier studies and the current one discussed how students’ proficiency level may have an effect on their perceptions of LLS use (see Section 6.3.3 and Section 6.4.2). However, does this mean that the students’ different perceptions of LLS use were simply due to their different proficiency levels? The RQ6 was raised for this purpose. By answering this research question, we may also detect which variable could better predict the students’ perceptions of LLS use, and whether the predictor, if there were any, was the same or not between CHL and NCHL students. Before we answer the RQ6, a one-way between-groups analysis of covariance (ANCOVA) was conducted to further compare heritage and non-heritage Chinese students’ perceptions of LLS use by using proficiency as a covariate (see Section 5.4.4 for the rationale of using this method). We then conducted multiple regression analyses to see which factor: students’ gender, age, mother tongue, proficiency level, motivation, or language learning belief, better predicted the students’ perceptions of LLS use (see also Section 5.4.4).

#### **6.8.1 One-Way ANCOVA**

As mentioned in Section 5.4.4, separate analyses of covariance (ANCOVAs) were further computed by using proficiency as a covariate while looking at the difference between CHLs and NCHLs. This technique was also used by Elbaum, Berg, and Dodd (1993). They conducted ANCOVA using the total number of hours assigned to the five formal activities as the dependent variable, with the average enjoyment

rating of the formal activities and length of previous language study as covariates. The rationale for them using this analysis was that whereas the total number of hours assigned to formal activities was predictable from the hours assigned for functional activities, the perceived enjoyment ratings of the formal and functional activities were independent of one another (Elbaum et al. 1993, p. 326). Fraser (2007) also used this test to compare first and second language (L1/L2) reading rate and task performance on five tasks: scanning, skimming, normal reading, learning, memorizing, in two groups of Mandarin speakers (Canada group and China group). Fraser (2007) employed repeated measures ANOVA design with one between-subject factor (Group), two within-subject factors (Language, Task), and L2 proficiency as a covariate to investigate her research question (p. 372).

In order to perform ANCOVA, the internal reliability of heritage and non-heritage Chinese students' proficiency levels were first tested using Cronbach's alpha. The test results had very good internal consistency and the scale was found to be reliable. The alpha coefficients of heritage and non-heritage students' proficiency levels were .93, and .91, respectively, which satisfied the recommended value of .7 (Pallant 2005). Preliminary checks were also conducted to ensure that there was no violation of the assumptions of normality, linearity, homogeneity of variances, homogeneity of regression slopes, and reliable measurement of the covariate. The results indicated that there was significant difference between heritage and non-heritage Chinese students' perceptions of LLS use after controlling their scores on proficiency levels. By using factors derived from factor analysis, the result was:  $F(1, 256) = 99.9, p = .001$ , partial eta squared = .28. However, the effects attributable to the covariate, proficiency levels was not significant [ $F(1, 256) = .95, p = .33$ , partial eta squared = .004], which indicated only .4 per cent of variance can be explained. The result was same when we used the original LLS:  $F(1, 256) = 71.40, p = .001$ , partial eta squared = .22. And the effects attributable to the covariate, proficiency levels was again not significant [ $F(1, 256) = .12, p = .33$ , partial eta squared = .001], which indicated only one per cent of variance can be explained. Thus the one-way ANCOVA, both by using original category of SILL or by using factors derived from the factor analysis, suggested that the differences between the students' perceptions



of LLS use were not due solely to differences in proficiency levels.

### 6.8.2 Multiple Regressions

Standard multiple regressions were conducted, using the enter method to see which better predicted the students' perceptions of LLS use. This technique was also used by Nun (2005), Comanaru and Noels (2009), Li and Qin (2006). The variables: gender, age, mother tongue, proficiency level, intrinsic motivation, extrinsic motivation, and Chinese language learning beliefs, were simultaneously entered into regression equation. The result indicated that this model was not significant for predicting NCHL students' perceptions of their general LLS use [ $F(8,137) = 1.18$ ,  $p > .05$ ,  $R^2 = .067$ ]. However, this model was significant for predicting NCHL students' factor 6 of LLS – memory strategies [ $F(8, 133) = 2.20$ ,  $p < .05$ ,  $R^2 = .117$ ]. In this model, NCHL students' mother tongue and age made same contribution, with the same Beta value of .176 (see Table 6.28).

**Table 6.28: Multiple Regressions for Predicting NCHL Students' Factor 6 of LLS**

Variable	b	SE b	Beta
Mother Tongue	.080	.038	.176*
Age	.099	.050	.176*

\*. $p < .05$ ; \*\*. $p < .01$ ;

*NCHL students' factor 6 of LLS was memory strategies.*

In the CHL students group, the same model was significant for predicting CHL students' perceptions of their general LLS use [ $F(8, 110) = 4.46$ ,  $p < .001$ ,  $R^2 = .263$ ]. This result suggested that in CHL group, 26.3 per cent of the variance in students' LLS use was explained by the model. The largest Beta coefficient in this model was .329, which was CHL students' mother tongue. This means that this variable, i.e. CHL students' mother tongue, made the strongest significant contribution to explain their LLS use when it explained by all other variables in the model was controlled for. The Beta value for CHL students' intrinsic motivation was second highest: .283, indicating that it made the second significant contribution to explain their LLS use. Significant variables are shown in Table 6.29 below:

**Table 6.29: Multiple Regressions for Predicting CHL Students' LLS**

Variable	b	SE b	Beta
Mother tongue	4.37	1.18	.329***
Intrinsic motivation	7.53	2.42	.283**

\*. $p < .05$ ; \*\*. $p < .01$ ; \*\*\*. $p < .001$

In addition, this model was significant in predicting CHL students' factor 2 of LLS – formal oral practice strategies [ $F(8, 109) = 3.18$ ,  $p < .01$ ,  $R^2 = .193$ ], factor 5 of LLS – compensation and affective strategies [ $F(8, 109) = 2.26$ ),  $p < .05$ ,  $R^2 = .146$ ], and factor 6 of LLS – social strategies [ $F(8, 106) = 1.90$ ),  $p < .05$ ,  $R^2 = .125$ ]. As shown in Table 6.30, CHL students' LLB was the best predictor to predict their factor 2 and factor 5 of LLS, with the Beta values of .325 and .189, respectively. CHL students' proficiency level and their intrinsic motivation were the second best to predict factor 2 and factor 5 of LLS, the Beta values were .208 and .187, respectively. Mother tongue, on the other hand, was the best predictor to predict CHL students' factor 6 of LLS – social strategies, with the Beta value of .298.

**Table 6.30: Multiple Regressions for Predicting CHL Students' Subcategories of LLS**

	Variable	b	SE b	Beta
F2LLS	LLB	.88	.07	.325***
	Proficiency	.15	.24	.208**
F5LLS	LLB	.400	.194	.189*
	Intrinsic motivation	.216	.109	.187*
F6LLS	Mother Tongue	.162	.051	.298**

\*. $p < .05$ ; \*\*. $p < .01$ ; \*\*\*. $p < .001$

*F2LLS: CHL students' factor 2 of LLS – formal oral practice strategies. F5LLS: CHL students' factor 5 of LLS – compensation and affective strategies. F6LLS: CHL students' factor 6 of LLS – social strategies.*

The above result confirmed Hypothesis Six: although proficiency level may have impact on the students' perceptions of LLS use, it is not necessary a good predictor to predict the students' LLS use. Other variables, such as motivation, may also be a good predictor to predict heritage and non-heritage Chinese students' perceptions of LLS use. CHL students' mother tongue was the best predictor to predict CHL students' general LLS use and factor 6 of LLS use – social strategies. In addition

CHL students' intrinsic motivation was the second best predictor for their general perceptions of LLS use and for their factor 5 of LLS – compensation and affective strategies. Furthermore, CHL students' LLB was the best predictor to predict their factor 2 of LLS – formal oral practice strategies, and factor 5 of LLS – compensation and affective strategies. CHL students' proficiency level and their intrinsic motivation were the second best to predict factor 2 and factor 5 of LLS. No variable was good to predict NCHL students' perceptions of their general LLS use. However, NCHL students' mother tongue and age was the best and the second best to predict their factor 6 of LLS – memory strategies.

### ***6.8.3 Discussion of Results from Research Question Six***

The results from the above ANCOVA and standard multiple regressions analyses confirmed Hypothesis Six: Despite proficiency level having impact on the students' perceptions of LLS use, it is not necessarily a good predictor to predict the students' LLS use. Other variables, such as motivation, may also be a good predictor to predict heritage and non-heritage Chinese students' perceptions of LLS use. CHL students' mother tongue best predicted their perceptions of general LLS use, and CHL students' intrinsic motivation was the second best predictor for their perceptions of general LLS use, but no variable was good enough to predict NCHL students' perceptions of LLS use. In addition, mother tongue was the best to predict CHL students' factor 6 of LLS – social strategies and NCHL students' factor 6 of LLS – memory strategies. Furthermore, CHL students' LLB was the best to predict CHL students factor 2 of LLS – formal oral practice strategies and factor 5 of LLS – compensation and affective strategies; and CHL students' proficiency level and their intrinsic motivation was the second best to predict their factor 2 of LLS and factor 5 of LLS, respectively.

These results suggested that we could predict what strategies that heritage Chinese students may use by their mother tongues and their intrinsic motivations. In another word, the heritage Chinese students' mother tongues and their intrinsic motivations may suggest what strategies they may use in studying Chinese. In addition, CHL

students' mother tongue was also the best predictor to predict their social strategies – factor 6 of LLS use, and their LLB was the best predictor to predict their formal oral practice strategies – factor 2 of LLS use and their compensation and affective strategies – factor 5 of LLS use. Mother tongue seems to have played an important role in CHL students' perceptions of LLS use. However, as we noted earlier, awareness should be paid as the percentage of each type of CHL students' mother tongue was not evenly balanced: 51.3% students spoke English as their mother tongue, 35% spoke Cantonese and 4.3% spoke Mandarin as their mother tongue, 2.6% Russian as other European mother tongue group, and 6.8% of CHL students spoke other Asian languages, including one Korean; one Taiwanese; four Malay; and two regarded both English and Hakka as their mother tongue (see Section 6.2). The current study suggests that students' mother tongue, especially CHL students' mother tongue, can serve as a good signal from which we can tell what strategies they might use. However due to the unbalanced numbers from each type of mother tongue group, we recommend further investigation to generalize the findings. It is worthwhile and important to do so as we think it will have an impact on pedagogy.

### **Summary**

This chapter has discussed the results and the discussion of the quantitative survey. By analyzing the results obtained from the quantitative study, all six research questions were answered and the six hypotheses were confirmed. In the next chapter we present the results and the discussion of the survey from the semi-structured qualitative study.

## Chapter 7: Results and Discussion of the Qualitative Study

This chapter presents the results and the discussion from the qualitative study. It includes six parts: introduction; students' motivations in studying Chinese; students' beliefs on studying Chinese; students' perceptions of strategies in studying Chinese; students' views on relationships between motivations, beliefs, and learning strategies in studying Chinese, and discussion of the qualitative study, followed by a summary of the chapter.

### 7.1 Introduction

The second phase adopted a qualitative approach in order to get more detailed information with regard to the research questions from the students. As described in Section 5.5, the interviews were semi-structured. They included individual interviews and a group interview, both conducted in English. The interviews were all tape-recorded and transcribed.

Five participants from heritage and non-heritage Chinese students group were selected randomly for the individual interviews. However, as mentioned earlier in Section 5.5.1, data from one participant in the heritage group were missing, and so a participant<sup>40</sup> from the non-heritage Chinese student group was excluded in order to make the participants' numbers equal in both groups. Hence four interviewees' data from each group were included for analyses and discussion. Transcripts of two interviews are given in full in Appendices D and E.

The interviewees from each group were: two males and two females; two professionals and two non-professionals, i.e. students; one from each age group (there were four age groups<sup>41</sup> in each of heritage and non-heritage students group);

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<sup>40</sup> The missing data from heritage group and the excluded data from the non-heritage group were both female secondary school students, under 17 years old, and both were at the beginning level of Chinese proficiency.

<sup>41</sup> The four age groups were: age group 1, 15 to 18 years old; age group 2, 18 to 26 years old; age group 3, 26 to 40 years old; age group 4, above 40 years old.

and one from each proficiency group<sup>42</sup> (there were four proficiency groups in each of heritage and non-heritage students group).

The four heritage Chinese students (see Section 1.4 for the definition of “Heritage Chinese Students”) were Sun<sup>43</sup>, Lydia, Mary, and Luke. Born in Hong Kong, Sun was 17 years old. He came to the UK when he was three. His parents (both speaking Cantonese) are from mainland China. Lydia was 25 years old, working at a college. Her parents are both Chinese British, speaking Cantonese. Mary, a British born Chinese (so-called BBC), was 28 years of age, doing her PhD in Biology at Newcastle University. Both of her parents speak Cantonese. Luke was a 42 years old professional, working in the area of computer software. He is half British and half Malaysian. His mother, who speaks Hakka, is Malaysian and of Chinese Ethnic origin (see Table 7.1).

The four non-heritage Chinese students were Mark, Kathy, Dennis, and Heather. Mark was 17 years of age, studying Chinese in a secondary school in Scotland. Kathy was a 24 years old young pianist, and was doing an MA in Music Performance. Dennis was 38 years old working for the government. Heather was a 55 years old retired psychotherapist at the time of the interview (see Table 7.1).

**Table 7.1 Interviewees from Heritage and Non-Heritage Group**

Group	Name	Gender	Age	Profession	Proficiency
Heritage	Sun	M	17 (age group 1)	Student	Intermediate
	Lydia	F	25 (age group 2)	Professional	Beginner
	Mary	F	28 (age group 3)	Student	Near Native
	Luke	M	42 (age group 4)	Professional	Advanced
Non-Heritage	Mark	M	17 (age group 1)	Student	Intermediate
	Kathy	F	24 (age group 2)	Student	Near Native
	Dennis	M	38 (age group 3)	Professional	Beginner
	Heather	F	55 (age group 4)	Professional	Advanced

<sup>42</sup> The four proficiency groups were: beginner, intermediate, advanced, and near-native groups.

<sup>43</sup> The participants were given pseudonyms throughout this current work in order to ensure their confidentiality.

In addition, a group interview was conducted, which comprised a class of twelve students (two heritage Chinese students and ten non-heritage Chinese students, five boys and seven girls) from one of the researcher's classes at Newcastle University. The students, aged from 18 to 25, were at their first year of undergraduate study studying for various programmes, such as BA in Chinese and Culture Studies and BA in Modern Languages and Business Studies etc. Conducted at the end of a class in the classroom, the interview lasted about 25 minutes and was tape recorded. The non-heritage Chinese students in this group had only learned Chinese for a couple of months by the time of the interview. The other two heritage Chinese students were Cantonese speakers, but never learned Mandarin Chinese before.

In the following Sections, the results through the students' quotations relating to the research questions are presented, interspersed with discussion when necessary. As can be seen from the next Sections, the interviewees' quotations are presented in various quantities, i.e. some interviewees have more and some have fewer quotations presented. There are two reasons for this. Firstly, as mentioned earlier in Section 5.5.1, the length of each individual interview varied from 20 minutes to one hour; and the group interview lasted about 25 minutes, the quantity of each data obtained from the interviewees were therefore varied. The second reason is: some quotations were not presented as their content duplicated those presented. At the end of this chapter, one Section was set aside for overall discussion of the results obtained from the interviews.

## **7.2 Students' Motivations in Studying Chinese**

Most of heritage Chinese students revealed intrinsic motivation (see Section 1.4, Section 2.2.3, and Section 6.5.1 for the related information, such as definition). For example, Luke saw Chinese culture as a major motive for him to study Mandarin Chinese. He was interested in Chinese culture since he was 14 years old. He told the researcher:

*When a young boy about 14 years old, I was introduced to Chinese film with Bruce Li and martial art's film, then started learning Gongfu, with classes to learn very little bit Chinese how to count 1,2, 3, but always always wanted to go*

*further. I decided to learn the language, the history, the culture, the medicine, and everything else.*

Luke then learned a bit of Mandarin Chinese in his classes. Later, he had an accident and injured himself. His friends brought him some books and DVDs on martial arts, including Taichi when he was in the hospital. He realized how good Taichi was for rebuilding the body, so he decided to learn Taichi when he got out of hospital in order to build up strength, and to make his body strong again. He felt that it opened many doors for him, so he started studying Taichi in earnest. He told the researcher:

*The more I learned Taichi, the more I wanted to know about Chinese culture. I decided to learn the language. It was just fascinating to learn about China.*

Lydia and Sun both reported that the main motivation for them in learning Chinese was their ethnically Chinese origin. They said:

*I was born in China. I came here [UK] at 8. I thought I come from China, I am Chinese, so I should be able to speak Chinese better, and to know China better (Lydia).*

*Well, I decided to study Chinese because I was actually born in Hong Kong and I came here in 1994 and actually speak the language really fluently but I have trouble writing.... I decided to study Chinese because it's my home language and also studying in the UK makes me forget Chinese language, so I attended Chinese class (Sun).*

In addition to intrinsic motivation, the heritage Chinese students interviewed also displayed extrinsic motivation. For example, Lydia told us another reason for her to study Chinese was to get a job later in Hong Kong:

*I wanted to work in Hong Kong. I wanted to improve my Chinese in reading, and writing as well, so I can work in Hong Kong.*

Like Lydia, Mary's interest in Chinese language was also driven by both intrinsic and extrinsic motivation. Her friend was the first person who influenced her:

*My friend was born in Hong Kong. He came over here maybe at 4 years old and grown up here, and he convinced me to go with him. He influenced me to study Mandarin.*



Mary's interest in studying Chinese was initially influenced by her friend (extrinsic motivation), but later she became interested in the language herself (extrinsic motivation). Being a scientist, she enjoys exploring unknown entities. She realized that Mandarin Chinese will become very important:

*Language is scientific. I know it's very beneficial and very useful to know different languages, and Chinese particular, I like to discover new things. I think Chinese, particularly mandarin got to be very important.*

The two heritage Chinese students from the group interview reported that they studied Mandarin Chinese because it was their mother tongue. One also found Chinese culture to be intrinsically interesting, he said:

*There's so much culture bounded in the words, require a great depth of understanding, more than just linguistics. It's like occasions when you [the researcher] explain the origins of the words, or something, or the characters on the board, and that sort of reading and writing things and looking into some of the radicals [semantic components of Chinese characters], and the original shape. I've never come across anything quite like that before.*

Thus the four heritage Chinese students from the individual interviews and the two heritage students from the group interview showed that their motivations were: ethnically Chinese origin, interested in Chinese culture, interested in the Chinese language, friends' influence, and work in China. However, despite being motivated by both intrinsic and extrinsic motivations, CHL students demonstrated more intrinsic related motivations, which addresses Research Question Three and reinforces the results from the questionnaire study.

Non-heritage Chinese students on the other hand, showed both intrinsic and extrinsic motivations in learning Chinese. For example, some (e.g., Mark, Dennis and some non-heritage students from the group interview) were influenced by friends; some studied Chinese for the reason of travelling (e.g., Heather and Mark) or career (e.g., Mark and non-heritage Chinese students from the group interview); some (e.g., Kathy and non-heritage students from the group interview) found the Chinese language fascinating and interesting. In addition, extra findings were also obtained

from non-heritage Chinese students who revealed that their motivations in studying Chinese were for instance, for health, for brain, for duty and responsibility, and wanting to be better than others (e.g., Dennis, Heather, and some non-heritage students). These motivations were additional to the current study.

Mark and some non-heritage Chinese student from the group interview decided to study the Chinese language mainly due to friends' influence. For instance, Mark told the researcher:

*My friends wanted me to do this; they said it's good for me.*

The other reasons for Mark to study Chinese were travelling and working in China. He reported:

*I enjoy travelling and go around the world. When I go to a country, I'd like to speak a few words that country speak. I've been to China quite a few times, and never known any world before I went there. And that's main reason; I hope I can speak to people when I travel. Also I've got a few people from China, so it's nice to speak to them in Chinese. And another reason is to do with job. I'd like to work in China, maybe in future.*

However, for Kathy, the young pianist, the main reason to learn Mandarin Chinese was because of the Chinese characters. She said:

*I found the script fascinating. I'm quite creative, I like to make things, and it strikes to be a bit of arty language, because of its little pictures...People are fascinated by different things, for me, script is first thing to drive me to learn mandarin....Scripts make me want to learn.*

Some non-heritage students considered studying Mandarin Chinese would provide them better business opportunities, or that they would have more opportunities to work in China in the future (see quotes from Mark's above). Others from the group interview saw Mandarin Chinese as an intrinsically interesting language. They were fascinated with the language, and its structure, and were intrigued by the whole concept of the language. Some said they wanted to be better than others, or wanted to do something different from usual. Some regarded learning Mandarin Chinese as a challenge that European languages do not offer, and wanted to study a language different from European languages, to study something new and different so as to

help them to develop personally.

Quite a few non-heritage Chinese interviewees, Heather, for example, observed that Mandarin Chinese was the most spoken language in the world, and that many people spoke this language all over the world. They maintained that Mandarin Chinese would be one of global languages in the future. Heather believed that China has become an important force in the world, and she considered it her duty and her obligation to understand what was happening. Being retired, she was certain of having time to work on it. She also had a plan to go to China during the next few years, explaining that:

*I want to go to China; I want to be able to communicate...I go to China simply for travel; I want to see as much of China as I can over a period of years...*

The other reason for Heather to study Mandarin Chinese was that she believed it would be good for her health to keep her mind working. Formerly Heather had been very ill and was recovering at the time the interview was conducted. To assist her recovery, she walked, swam, and did exercises. After she recovered, she wanted something interesting and stimulating for her brain and decided that learning Mandarin offered the best option for that. She was so motivated that she spent 15 hours [sounds unbelievable, however, that was what she told us] on Chinese study every day, starting at 5:30 A.M. She said:

*I want something stimulating... I've been very ill, and am now recovering. I do things, I walk, I swim, I exercise, I do interesting things, and I want something for my brain. I thought Mandarin was the best thing for that, the thought is very stimulating indeed. I spent 15 hours for it every day. I got up 5:30, very early. I like to get up very early, years of being psychotherapist. I like the dawns, and I live near river; I like to get up very early.*

As to Dennis, he had many reasons for studying Chinese. The main reason was interested in China, which was an intrinsic motivation. In addition, like Mark, he was extrinsically motivated by friends' influences. Furthermore, like Heather, he felt that learning Mandarin Chinese could help him to exercise his mind and to keep it active, which was an additional finding to the current study. Dennis told us:

*Chinese is something to focus on mentally, and to concentrate on, because I*

*believe if you keep your mind working, you got to do that, it's suppose to be good for the health, keep in very active, and keep your mind working.*

Thus we see that the non-heritage students in the interviews showed that their motivations were more extrinsically related which therefore addressed Research Question Three and corresponded to the results from the questionnaire study. In the quantitative study (see Section 6.5), we found that NCHL students' first two top reasons for studying Chinese were to work in China and to travel in China.

In general, the results on students' motivation in studying Chinese from the interviewees were consistent with that from Research Question Three in the quantitative study, which informed us that CHL and NCHL students exhibited both intrinsic and extrinsic motivations, for instance influenced by friends, and wanting to get a job in China, and driven by the ethnical cultural origin etc. In addition, the results from RQ3 in the quantitative study also suggested that CHL students had significantly stronger intrinsic motivation than NCHL students, and NCHL students had significantly stronger extrinsic motivation (please refer to Section 6.5). The interviews apparently revealed consistent results as those in the quantitative study. For instance, Luke, a heritage Chinese student, saw Chinese culture as a major motive; and Mark, a non-heritage Chinese student, was motivated in studying Chinese mainly due to friends' influence (see their quotations above). Furthermore, these interviews presented us with not only a more vivid picture as to why they chose to study Chinese; these interviews also provided us with some extra information as to why these students wanted to study Chinese, for example, Dennis and Heather studied Chinese for health and keeping mind active (see their quotations above). We shall turn our attention to these extra findings in the final Section of this chapter.

### **7.3 Students' Beliefs on Studying Chinese**

Heritage Chinese students from the interviews (e.g., Luke and Mary), held positive views on learning Chinese with regard to their language learning beliefs, thus dealing with Research Question Four and consistent with its results in the

quantitative study. The CHL students interviewed did not feel that learning Chinese is difficult. For instance, Luke said:

*Because I've learnt Asian language, which is Japanese, I haven't found Mandarin very difficult. There are some similarity in Chinese and Japanese, writing, pronunciation etc. It's not very hard.*

Likewise, Sun and Mary both did not consider learning Chinese very difficult. Speaking Cantonese as their first language, they noticed many similarities between Cantonese and Mandarin, and so they did not feel it difficult to learn Chinese characters. In addition, as a result of knowing word order in Cantonese, they found learning Mandarin Chinese grammar is not difficult either. Mary, for instance said to the researcher:

*Because I already know Cantonese, that's [learning Chinese characters] not that difficult. Even with the grammar, it's very similar to Cantonese, so I know which order is needed.*

Mary believed that, depending on the individual, it would not take long for one to learn Chinese well:

*If someone spend an hour a day, two years is possible to learn Chinese well, depending on the person, how good skills he has, how good his memories.*

Non-heritage Chinese students however, considered Mandarin Chinese is a very difficult language to learn. For instance, in answering the researcher's question: "Do you think Chinese is difficult to learn?" Dennis replied:

*Yes. Very different language from European language. There are separate systems, sound was written in pinyin and writing, nothing similar to English and other European language. It's difficult and challenging... Characters are the most difficult.*

As a result, in Dennis' view, if someone spends one hour a day in learning Chinese, he thought it will take a very long time to learn it well. He said:

*It will take very long time. Even if one ideally can spend 10 or more hours a day, or at least 2 hours a day, I still difficult, unless you got a lot practice in the country to grasp the language. I still think it's lots difficult.*

Like other non-heritage Chinese students, Heather, Mark, and Kathy all felt learning Chinese was not easy, and one hour a day was not enough for learning Chinese well. They considered it takes long time to learn Chinese. For example, Mark felt learning Chinese was not easy, and one hour a day was not enough for learning Chinese well. If someone spends one hour a day learning Chinese, he thought it would take three to five years to learn well. Heather however thought it will take 10 years to grasp the language if one studies Chinese one hour a day. She explained:

*One hour a day isn't enough, I think 2 maybe. But it doesn't get consolidated, 1 hour a day, you do a little bit, but you need that extra bit I think of time to do more.*

Due to time constraints, it was not possible to ask all the questions with regard to students' LLB in the questionnaire. However, in terms of the students' beliefs on 'Difficulty of Language Learning' (relating to Research Question Four), the results obtained from the interviews were consistent with that from the quantitative study. The results for the Research Question Four in the quantitative study suggested that CHL and NCHL students' mean scores for their beliefs on 'Difficulty of Language Learning' were 2.54 and 2.43, significant at  $p < .05$  level (see Section 6.6.1). The five Likert scales in the questionnaire ranges from 1 – strongly disagree, to 5 – strongly agree (see Questionnaire B in Appendix B). The items for the beliefs on the Difficulty of Language Learning include 3, 4, 5, 15, 25, and 34. Take item 4 and item 15 as examples. Item 4 is to do with how difficult students consider Mandarin is, and the scales range from 1 – a very difficult language, to 5 – a very easy language. Item 15 asks: if someone spent one hour a day learning Chinese, how long would it take them to learn it very well. The options for this item are: 1 – you cannot learn a language in one hour a day; 2 – 5-10 years; 3 – 3-5 years; 4 – 1-2 years; and 5 – less than one year (see Questionnaire B in Appendix B). Therefore the higher the mean score is, the easier the students felt the Mandarin Chinese is and the less time the students thought it will take to learn Chinese well. Therefore the above mean scores, (2.54 and 2.43 for CHL and NCHL students, respectively), obtained from the quantitative study suggested that CHL students felt that learning Chinese is less difficult and it takes less time to learn Chinese well than NCHL students considered, with the significant value of  $p = .023$  ( $p < .05$ ).

In line with the quantitative study, the CHL students interviewed felt studying Chinese was less difficult, as they had some knowledge of languages such as Japanese and Cantonese, which they believed were to some degree similar to Mandarin. Therefore they had more confidence to learn Chinese well. Whereas the NCHL students felt strongly that Chinese is a difficult language to learn as it is completely different to the language they know, such as English, with separate speaking and writing system. Most of the NCHL students believed one hour a day was not enough to learn the language well and they believed that it takes a long time for one to learn the language well (see the quotations above).

#### **7.4 Students' Perceptions of Strategies in Studying Chinese**

In general, the results from the interviews reflected what was found from Research Question One with regard to the students' perceptions of strategies in studying Chinese in the quantitative study, although in the current study, the interviews were not supposed to quantify these results. For example:

- both CHL and NCHL students used memory strategies, such as using flashcards;
- both CHL and NCHL students used cognitive strategies, such as repeating and watching Chinese films or TVs;
- both CHL and NCHL students used metacognitive strategies, such as making a plan and setting a target for everyday study;
- both CHL and NCHL students used social strategies, such as practicing Chinese with Chinese speakers

Most of the heritage students interviewed (e.g. Sun, Luke and Mary) reported greater use of memory, cognitive and metacognitive strategies. This pattern is consistent with what was revealed in the quantitative study with regard to the Research Question One on the students' Chinese language learning strategies, in which CHL students reported higher perceptions of using of these types of strategies. For example, in answering "How do you learn Chinese?", Luke replied:

*Imitate, copy, repeat* [memory strategies]

In addition, Luke made plans for his Chinese study:

*I tried to study two hours each day. Most of time, I will try to hit my target [metacognitive strategy], sometimes in the morning, reading, and practice writing, speaking, but not listening. I copy sheets from a book [memory strategy], and I try to do this every day In terms of reading, I use a textbook, usually link with homework, try to revise [memory strategies], try to build up vocabulary, try to imitate.*

As to Mary, she used cognitive strategies, metacognitive strategies, and memory strategies. She said:

*I try to find patterns [cognitive strategy]; this is to do with writing more than with anything else, such as characters, with regard to grammar, for a higher level learner.*

Mary made a plan and practised Chinese at least one hour every day [metacognitive strategy]. She considered using the language frequently was important [cognitive strategy], as she felt it was important to transfer short term memory to long term memory. She told us:

*I used to be very good at French, but now I'm struggled. You need to transfer short term memory to and use it again and again, and it stays longer and becomes long term memory.*

Additionally, Mary reported:

*[I] physically act out new words [memory strategy]. For a new word, I'd try, just get meaning across, visualize, use your eyes well, and communicate visually. But that alone won't be so good, a combination would work. If your pronunciation isn't perfect, your gestures, hands would help to get message across.*

As to Sun, considering it helpful for studying Chinese and for understanding Chinese culture, he watched Chinese TV [cognitive strategy]. He also repeated copying words and tried not to translate word for word [cognitive strategies] and revising frequently [memory strategies]. He said:

*I watch Chinese TV, CCTV 9 ...I found copying Chinese characters helpful... if you translate word for word, it doesn't always make sense, because of the sentence structures...Also I do frequent revision.*



The other two heritage Chinese students from the group interview also reported that they used similar strategies to study Chinese, such as copying words, using flashcards, and trying to write sentences using characters they knew. In addition, they also made use of associations; practiced conversation, and memorized texts or sentence structures, which all fall into the category of memory strategies.

As to non-heritage Chinese students, they also reported using memory strategies frequently, such as using flash cards (e.g., Mark and Kathy). For example, Kathy used flashcards to learn new words. She told us:

*I got software on computer where I can make flashcards, so I would make flash cards, Chinese on front and English on the back.*

Like Kathy, Mark also learnt to write Chinese characters by using flash cards. In addition, he tried to connect sound with his imagination, and sometimes physically act out words [all memory strategies]. He said:

*I read a lot with flash cards, I made flashcards... I like using flash cards... I think flashcard is good for everybody, especially for characters' recognition... Yes [I physically act out words]. The way I do physically is with tones, I try to follow the tones with my head, just moving head or hands when do tones. I move my head when I do the tones.*

NCHL students also reported using cognitive strategies such as repeating frequently. For example, Heather told the researcher:

*I write a lot... I have spent a lot of time writing, character after character, repeating the characters, to learn the characters, to learn how to write them, and to know what they mean as well.*

Likewise, Mark said:

*I do lots of pattern drills, I follow the stroke order, I know top to bottom, left to right, set up before finishing, I know that, I'm ok with that...*

In addition, NCHL students, for example Mark, considered social strategies such as group discussion a good way to learn the language. He reported:

*... Group discussion, CDs might help a lot of people pick up tones, but won't be good for reading or character recognitions. I think people get together outside of class, meet up at town having a cup of coffee, talk about what works for*

*them or what stuck.*

As to Dennis, he used strategies such as cognitive, metacognitive, and social strategies to study Chinese. He preferred using social strategies, like Mark and other non-heritage Chinese students from the quantitative study. He tried to find opportunities to practice Chinese with Chinese speakers. He enjoyed practicing Chinese with Chinese people he met. He said:

*Quite a lot students [Mandarin Chinese speakers] come to library, and I'll try to practice with them. I felt good when I can talk some in Chinese.*

The cognitive strategies that Dennis used were for example watching Chinese TV and reading newspaper. For Dennis, a good way to practice characters was to read characters in newspapers. He felt that recognizing characters would be easier than remembering how to write.

*I watch Chinese movies, TVs, Chinese sounds with English subtitle, it's fascinating when you found yourself you could understand something from the movie or TV... I try to read characters in newspapers, but not very good. Recognizing is easier than remembering how to write.*

Likewise, non-heritage Chinese students from the group interview also reported that they wrote everything out, copied characters, used flashcards; and practiced speaking Chinese with their Chinese friends or relatives.

To sum up this Section, in interviews both CHL and NCHL students' perceptions of learning strategies reflected the results from the quantitative study with no contradiction. Both group students' reported using memory strategies, such as flash cards; cognitive strategies, e.g., repeating, revising, and watching Chinese TV or film; metacognitive strategies, for instance planning for daily study, and social strategies, such as trying to speak to Chinese speakers. However, few mentioned using affective strategies, such as talking to people about how they feel when learning Chinese. This echoes the results obtained in the quantitative study where we found that both CHL and NCHL students reported low use of affective strategies ( $M = 2.49, 2.67$ , respectively).

Interestingly, the quantitative study suggested that both CHL and NCHL students preferred memory strategy 7: “*I physically act out new Chinese words*” the least, and the interviews revealed that both CHL (Sun) and NCHL students (Mark) used this strategy. However, the interview result was by no means contradicted by the quantitative study.

### **7.5 Students’ Views on Relationships between Motivations, Beliefs, and Learning Strategies in Studying Chinese**

There were two different views from the heritage Chinese students with regard to the relationship between beliefs and strategies. One view was that beliefs had no relationship with strategies. For example, Mary did not think her beliefs in language learning had to do with her preferences in learning strategy. She told us:

*What I believe is one thing, what I do is another thing, this is what I’d like to do, but in life you have to prioritize. This is not in an ideal world. It’s not a perfect scenario.*

However, the other heritage students, for instance, Luke, felt that there was a positive relationship between his motivation in studying Chinese and how he studied the language. His views on language learning affected how he learned. Luke said:

*The more I wanted to know Chinese culture, the more I want to study. I try to make time to study. If I put a lot of negative thoughts down, that probably makes it more difficult.*

Likewise, Sun considered that how he thought about learning Mandarin affected how he learned Mandarin in a very positive way. For example, he considered radicals [semantic components of Chinese characters] important, as a result, he copied Chinese characters frequently (see his quotations earlier). He told the researcher:

*I think radicals are very important. It’s probably the easiest and biggest step to learn all the different words.*

On the other hand, the results obtained from the non-heritage Chinese students interviewed reflected those from the quantitative study with no contradiction generally. Non-heritage Chinese students had positive views on the relationships

between motivations, beliefs, and learning strategies in studying Chinese. For example, with regard to the relationship between motivation and LLS, Heather felt that her attitude toward Chinese learning had a profound impact on how she learned Chinese:

*The more motivated, I'm going to China, the more I want to learn. The more stimulate, the more I want to learn, and the better I will learn.*

Likewise, the more motivated Mark was, the more often he wanted to study Chinese. He therefore tried to make extra time to study the language. Mark thought his motivation in studying Chinese affected how he studied. He believed that dedication leads to success. He told us:

*For me, how I study is dedicated. You got to put time and effort in, it's no good to say now I'm going to study five hours today, and then 10 minutes next week, you're not going to learn nothing.*

For Dennis, his beliefs about learning language affected the way he studied. However, like Mary, a CHL student, Dennis felt that sometimes he could not achieve according to what he believed:

*Ideally, in ideal world, because what I think about it, I'd devote more time to it, I'd try to be more systematic, and I'd try to concentrate a lot more, because what I believe about the language. But in real life I have to compromise. It's not good for me; it frustrates me. I need to concentrate more.*

As to Kathy, her major motive in studying Chinese was the fascination of Chinese characters. Her belief that learning Chinese characters was something that she may control therefore affected the way she learned. She explained:

*If I didn't want to learn Characters, I wouldn't bother to make flashcards. To me, if I made these flashcards, done my daily dose practicing, I feel I was doing what I needed to do. It's a fact it's something that I can get on and I can do, I suppose I feel like that I'm all in control of it almost. If I don't learn Chinese scripts, it's all my fault. I'm the one should put on work.*

In addition, by interviewing Kathy, some interesting and additional findings to the current study emerged. For example, Kathy suggested personality and educational background might affect how people learn. She said that how one learns a language depends in part on one's personality:

*I think partly this comes down to personalities. Some of my piano students*

*like a very organized way, they want a set of methods to practice, they want exactly what bit to practice, and quite happy to get on like that. And that is what I like to do. But I know some students, if you told them to do these and these in these order, they will go and never come back. So it depends on people's characters, and how they are more comfortable studying.*

Kathy further suggested that education could be another element that affected how one studied Chinese, observing that:

*I think part of it is possibly Education, do they know about these things. Education makes people partly aware of different strategies. And I think that is becoming more common in education. They're making more effort to show kids different ways of approaching things.*

To sum up this Section, the results from the interview did reflect what we found in the quantitative study, although it was not our purpose to quantify these results. For example most of the students – both CHL and NCHL students believed that motivation and their LLB affected how they learned Chinese, except Sun, one of the CHL students, and Dennis, a NCHL students, who believed that what they believed may not be able to be reflected in their ways of learning Chinese (see their quotations in the earlier part of this Section)

Sun and Dennis considered their beliefs in an ideal situation whereas how they studied was in reality. Although it seems not very common, this consideration is interesting, and it may be a reason as to why the Cronbach alpha of students' LLB in the quantitative study were not high (please refer to Section 6.6.2). It might be then, as Tanaka and Ellis (2003) inferred, that the low reliability may be due to students' contradictory beliefs and learners' belief systems are not homogeneous (please refer to Section 6.6.2).

In addition, the interviews had extra findings. For example, Kathy believed that personality and education affect language learning, which was additional interesting finding from the current study.

## **7.6 Discussion for Qualitative Interviews**

The key points from the interviews can be summarized as in Table 7.2:

**Table 7.2: Key Points from Interview Data**

	<b>Heritage Students</b>	<b>Non-Heritage Students</b>
<b>Motivation</b>	<p><b>Sun:</b> original culture and language</p> <p><b>Lydia:</b></p> <ul style="list-style-type: none"> <li>• ethnically Chinese origin</li> <li>• career</li> </ul> <p><b>Luke:</b> Chinese culture</p> <p><b>Mary:</b></p> <ul style="list-style-type: none"> <li>• friend’s influence</li> <li>• Chinese language</li> </ul> <p><b>Others:</b></p> <ul style="list-style-type: none"> <li>• Mother tongue</li> <li>• Chinese culture</li> </ul>	<p><b>Mark:</b></p> <ul style="list-style-type: none"> <li>• friends’ influences</li> <li>• travel</li> <li>• career</li> </ul> <p><b>Kathy:</b> Chinese characters</p> <p><b>Dennis:</b></p> <ul style="list-style-type: none"> <li>• China</li> <li>• friends’ influences</li> <li>• travel</li> <li>• exercise mind</li> </ul> <p><b>Heather:</b></p> <ul style="list-style-type: none"> <li>• duty and responsibility</li> <li>• travel</li> <li>• exercise brain</li> </ul> <p><b>Others:</b></p> <ul style="list-style-type: none"> <li>• friends’ influence</li> <li>• career</li> <li>• personal satisfaction;</li> <li>• Chinese language</li> </ul>
<b>Beliefs</b>	<p><b>Luke:</b></p> <ul style="list-style-type: none"> <li>• Chinese is similar to Japanese, so not very difficult to learn</li> </ul> <p><b>Mary:</b></p> <ul style="list-style-type: none"> <li>• Mandarin Chinese is similar to Cantonese, so not very difficult; one hour a day needs two years to do well</li> </ul>	<p><b>Dennis:</b></p> <ul style="list-style-type: none"> <li>• Chinese is very different and difficult language, takes very long time to do well, but it is fun and interesting</li> </ul> <p><b>Mark:</b></p> <ul style="list-style-type: none"> <li>• Chinese is very difficult to learn needs 3 to 5 years to do well</li> </ul> <p><b>Heather:</b></p> <ul style="list-style-type: none"> <li>• Chinese is medium difficult language to learn, but one hour a day, needs 10 years to do well</li> </ul>
<b>Strategies</b>	<p><b>Luke:</b></p> <ul style="list-style-type: none"> <li>• imitate</li> <li>• copy</li> <li>• repeat</li> <li>• plan for studying</li> <li>• revise</li> </ul>	<p><b>Mark:</b></p> <ul style="list-style-type: none"> <li>• using flashcards</li> <li>• physically act out words</li> <li>• repeat</li> <li>• group discussion</li> </ul> <p><b>Kathy:</b></p>

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<ul style="list-style-type: none"> <li>• practice with friends</li> </ul> <p><b>Mary:</b></p> <ul style="list-style-type: none"> <li>• find patterns</li> <li>• repeat</li> <li>• physically act out words</li> </ul> <p><b>Sun:</b></p> <ul style="list-style-type: none"> <li>• watching Chinese TV</li> <li>• repeat</li> <li>• don't translate word for word</li> <li>• review</li> </ul> <p><b>Others:</b></p> <ul style="list-style-type: none"> <li>• copy</li> <li>• flashcards</li> <li>• write sentences using new words</li> <li>• memorize</li> <li>• make use of association</li> </ul>	<ul style="list-style-type: none"> <li>• flashcards</li> <li>• plan for studying</li> </ul> <p><b>Dennis:</b></p> <ul style="list-style-type: none"> <li>• practice with people</li> <li>• watching Chinese TV</li> <li>• read newspaper</li> <li>• frequently review</li> </ul> <p><b>Heather:</b></p> <ul style="list-style-type: none"> <li>• copy</li> <li>• repeat</li> </ul> <p><b>Others:</b></p> <ul style="list-style-type: none"> <li>• copy</li> <li>• flashcards</li> <li>• practice with people</li> </ul>
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<b>Relationships</b>	<p><b>Mary:</b></p> <ul style="list-style-type: none"> <li>• Her beliefs do not affect how she studied</li> </ul> <p><b>Luke:</b></p> <ul style="list-style-type: none"> <li>• His beliefs affected how he learned</li> </ul> <p><b>Sun:</b></p> <ul style="list-style-type: none"> <li>• His beliefs affect how he learned</li> </ul>	<p><b>Heather:</b></p> <ul style="list-style-type: none"> <li>• Her beliefs had a profound impact on how she learned</li> <li>• The more motivated, the more she wanted to learn</li> </ul> <p><b>Mark:</b></p> <ul style="list-style-type: none"> <li>• The more motivated, the more he wanted to learn</li> </ul> <p><b>Dennis:</b></p> <ul style="list-style-type: none"> <li>• His beliefs do not affect how he learned</li> </ul> <p><b>Kathy:</b></p> <ul style="list-style-type: none"> <li>• Her beliefs affect how she learned</li> <li>• Personality affect how to learn</li> <li>• Education affect how to learn</li> </ul>
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As can be seen from the above Table, the results obtained from the qualitative interviews not only were consistent with those from the quantitative study, but they also revealed new areas of interest not readily detected with quantitative methods.

For example, based upon the interviews, the heritage students exhibited stronger intrinsic motivation than the non-heritage students. However, interesting details emerged from some of the interviews. Kathy and some non-heritage students from the group interview, for instance, showed a love of Chinese characters and language, as she said: *“I found the script fascinating ...Scripts make me want to learn.”*

In addition, interviews with heritage students in general confirmed the information from the quantitative study, namely a preference for cognitive and memory strategies; intrinsic motivation; and the belief that learning Chinese is not particularly difficult.

Taking Sun’s interview as an example, his report revealed intrinsic motivation (ethnic Chinese origin) and a preference for cognitive (watching Chinese TV) and memory strategies (review frequently), all of which were consistent with the data of the quantitative study. In addition, according to Cook’s groupings for language users (Cook, 2009a, also see Section 3.1.2), Sun falls squarely into Category E – the identity language user, [which refers to people historically from a particular community (re-) acquiring its language as an L2, e.g., Mandarin for other Chinese dialect speakers, returnees] (see Section 3.1.2). Yet Sun did not see Mandarin as being very different from Cantonese in many respects, such as grammar and vocabulary. He felt that his background in Cantonese gave him a genuine advantage in learning Mandarin.

Non-heritage Chinese students’ interviews, for example Mark’s, showed evidence of extrinsic motivation – friends’ influence and travelling and working in China; using social strategies, such as group discussion; and attitudes towards Chinese language learning typical of non-heritage students in the quantitative study, i.e. studying Chinese is difficult. However, he also used memory strategies, for example, using flash cards and physically acting out new words, and cognitive strategies, as he said

*“I do lots of pattern drills”*, which were more often used by heritage students, This result was relevant to the variety of choices open to individuals, and did not by any means go against the statistical significance of the quantitative data.

The other non-heritage Chinese student, Heather, exhibited many features typical of non-heritage learners, such as extrinsic motivation, i.e. studying for travelling; and her beliefs on Chinese language learning, for which she felt difficult and takes as long as 10 years to study well if studying one hour a day. However, she also revealed considerable intrinsic motivation and used both cognitive and memory strategies, both more typical of heritage students. Her interview also revealed some motivations that would not have been detected by the questionnaire, such as the belief that studying Chinese was good for one’s mental health, and the fact that she studied Chinese because she thought it was her duty and responsibility to know China well, as she mentioned, for example, *“I want something stimulating... and I want something for my brain. I thought Mandarin was the best thing for that...”*

Dennis’s interview also revealed more extrinsic motivation, for instance friends’ influence and travelling; use of social strategies, e.g. practicing Chinese with Chinese speakers; and beliefs on the Difficulty of Learning Chinese, i.e. Chinese is a very difficult language and takes very long time to learn well, as would have been expected from the quantitative data. However, he also employed cognitive strategies, such as watching Chinese TV and reading Chinese newspaper, a feature more typical of heritage students. And like Heather, Dennis believed that studying Chinese was beneficial to mental health, a type of motivation not included in our questionnaire.

To summarize, in addition to the consistent results to the quantitative study, we had additional and distinct findings from the interviews: some non-heritage students stressed personal growth and fulfillment as a strong motivation for studying Chinese. For example, Heather, Dennis, and students from the group interview expressed the desire to improve themselves, including their mental health, and to take duty and responsibilities to world affairs, as motivations for learning Chinese. Furthermore, some non-heritage Chinese students, for example, Kathy, consider personality and

educational backgrounds had impact on how one learns a language. Because the questionnaires were not explicitly designed to detect such motivations and beliefs, the quantitative data did not fully reveal the significance such motivations and beliefs could have for individual learners. It will be interesting and worthwhile to examine these in future research.

### **Summary**

This chapter presents results and discussion from the semi-structured interviews in the qualitative study. In the next chapter, we first summarize the present study, and then present its significance and limitations, followed by suggestions for further research and the conclusion for the current study.

## **Chapter 8: Summary and Conclusion**

This chapter provides a summary and conclusion for the current study. It first summarizes the main findings. It then looks at the significance of the study from theoretical and pedagogical perspectives. It also reflects upon the limitations of the study and provides suggestions for further research, followed by a conclusion to the whole study.

### **8.1 Summary of the Main Findings**

For Research Question One, namely “Are heritage Chinese students’ perceptions of Chinese language learning strategy use different from those of non-heritage Chinese students? ”, the main results were: heritage students used significantly more memory strategies, cognitive strategies, and metacognitive strategies than their non-heritage counterparts; whereas non-heritage students used significantly more compensation strategies, affective strategies, and social strategies than heritage Chinese students. In addition, the factor analyses suggested that the internal structures of CHL and NCHL students’ perceptions of LLS use were different. Students’ language proficiency level may contribute to the differences (Kagan and Dillon 2001; Hong 2006; Y. Wu 2007) (see Section 6.3.3).

The results for Research Question Two, namely “Is the relationship between heritage students’ proficiency level and their perceptions of LLS use different from that between non-heritage students’ proficiency level and their perceptions of LLS use?”, were: heritage students’ proficiency level was significantly correlated with their cognitive strategies; whereas non-heritage students’ proficiency level was significantly positively correlated with their compensation strategies, cognitive strategies, and their social strategies, and significantly negatively correlated with memory strategies. The linguistic facility had an effect on the use of LLS (Goh 1997; Mochizuki 1999; Jiang 2000), as Jiang argued: the proficiency level of the target language affects the selection and the use of cognitive strategies (Jiang 2000).

The main findings for RQ Three, namely “Is the relationship between heritage students’ motivation and their perception of LLS use different from that between non-heritage students’ motivation and their perceptions of LLS use?” were: heritage students had significantly stronger intrinsic motivation in learning Chinese, whereas non-heritage students had significantly stronger extrinsic motivation. In addition, heritage Chinese students’ intrinsic motivation was significantly correlated with their compensation and affective strategies – the fifth factor of learning strategy; whereas non-heritage Chinese students’ intrinsic motivation was significantly correlated with their memory strategies – their sixth factor of learning strategy; and NCHL students’ extrinsic motivation was significantly correlated with their social strategies – their second factor and their metacognitive strategies – their fifth factor of LLS.

The results for RQ Four, namely “Is the relationship between heritage students’ language learning beliefs and their perceptions of LLS use different from that between non-heritage students’ LLB and their perceptions of LLS use?” were: heritage students had stronger beliefs on the difficulty of language learning, the nature of language learning, and learning and communication strategy; whereas the non-heritage students had stronger beliefs on foreign language aptitude. In addition, the factor analysis revealed that the internal structures of CHL and NCHL students’ language learning beliefs were different. Furthermore there was a medium significant correlation between CHL students’ beliefs on characteristic of studying Chinese – their third factor of LLB, and their formal oral practice strategies – their second factor of LLS; and a small significant correlation between heritage Chinese students’ beliefs on the characteristics of studying Chinese – their third factor of LLB and their compensation and affective strategies – their fifth factor of LLS. On the other hand, there was a small significant correlation between NCHL students’ beliefs on motivation and strategy in learning Chinese – their first factor of LLB and their compensation and affective strategies – their first factor of LLS; and between first factor of LLB and their fourth factor of LLS – functional practice strategies. In addition, there was also a small significant correlation between non-heritage Chinese students’ third factor of LLB – beliefs on their perceived expectation of learning Chinese and their fourth factor of LLS – functional practice strategies, and between

non-heritage Chinese students' third factor of LLB – beliefs on perceived expectation of learning Chinese and their fifth factor of LLS – metacognitive strategies.

The results for RQ Five, namely “Do other variables such as students' gender, age and mother tongue have the same effect on heritage and non-heritage Chinese students' perceptions of LLS use?” were: CHL and NCHL students' gender had no effect on their perceptions of LLS use; NCHL students' ages had an effect on their factor 1 – compensation and affective strategies and factor six – memory strategies. In addition, CHL students' age had an effect on their factor three – cognitive strategies; And CHL students' mother tongue had an effect on their memory strategies – factor 1 of LLS and their social strategies – factor 6 of LLS.

The results for RQ Six, namely “Is “proficiency level” a good predictor to predict heritage and non-heritage Chinese students' perceptions of LLS use? were: the different perceptions of the two groups of students of LLS use were not due primarily to differences in their proficiency levels; NCHL students' mother tongue and age made some contribution and was equally significant for predicting their memory strategies – factor six of LLS; CHL students' mother tongue and their intrinsic motivation was the best and the second best predictor for their perceptions of LLS use. In addition, CHL students' LLB was the best predictor for their formal oral practice strategies – factor 2 of LLS, and their compensation and affective strategies – factor 5 of LLS; And CHL students' proficiency level was the second best at predicting their formal oral practice strategies – CHL students' factor two of LLS, and their intrinsic motivation were the second best at predicting their compensation and affective strategies – CHL students' factor five of LLS. CHL students' mother tongues were the best to predict their social strategies – their factor 6 of LLS.

## **8.2 Significance of the Current Study's Findings**

As discussed earlier (see Section 1.2), researchers in applied linguistics as well as practitioners in language pedagogy are giving increased attention to issues of heritage language instruction, and have ignited considerable interest in policy, research, and professional development in heritage language education internationally. A new field of “Heritage Language Education” is emerging (Brinton et al. 2009; Duff and Li 2009). Brecht and Ingold (2002) maintained that heritage languages should be seen as an untapped resource that could be of great benefit, and will provide a level of language expertise necessary for competing effectively within the global economy. Carreira and Armengol (2001) also suggested that: “One way to expand the available pool of professionals who are highly proficient in languages other than English is to preserve and nurture the heritage languages that abound in many immigrant communities” (p. 201). However, we know much less about heritage language learners than we do about foreign language learners (Kondo-Brown 2008, p. 17).

Furthermore, Choong (2006), building on V. J. Cook’s concept of multicompetence, observed that “Multicompetent people can do things that no monolingual person can, and knowledge of an L2 not only affects their L1 knowledge, but also enhances other perceptions and abilities as well” (p. 1). Such studies indicate that the UK enjoys significant linguistic assets in its multicultural population: more than one in eight primary school children speak a language other than English (CILT 2006). Permitting these language skills to flourish alongside English can only benefit society as a whole, as well as improving career prospects for members of these communities (CILT 2006; Kenner et. al. 2010).

However, despite a few studies on CHL students studying at community schools, as mentioned in Section 3.4, and despite it becoming a thriving contemporary area of research in the UK with more projects taking place in “complementary schools” (Anderson 2008a, 2008b; Barradas 2004; Francis et al. 2009; Martin et al. 2003; 2009; Tosi 1984; W. Li 2006; C. Wu 2006; McPake and Sachdev 2008), studies on Chinese as a Heritage Language, especially aspects of affective factors, are rare in

the UK. The available community school studies have had more to do with “complementary schools”, rather than with young adults at university and college and high school level, and have more to do with demographic factors and school structures rather than with the students’ attitudes, motivations, learning beliefs and strategies. It is evident that there is an urgent need for research to understand individual characteristics of adult heritage language learners (including young adults), such as their motivations, their beliefs, and their learning strategies in studying Chinese in the UK. The current study is a pioneer in this sense. It compared the two distinct learning groups: CHL and NCHL students. The results obtained from this study provide insights into heritage and non-heritage Chinese students’ constructs and characteristics of their Chinese language learning and therefore contributes theoretically to both Heritage Language and Second Language Acquisition fields.

A commonly accepted view is that culture is a major determinant in shaping both thought and behaviour (Markus and Kitayama 1991; Nisbett 2003), and Chinese culture encourages certain learning or cognitive characteristics, characteristics often thought to be related to a Confucian cultural tradition (Jiang, 2000; Nunn, 2005, 2006). The current research suggests that not all differences between CHL and NCHL students are due to culture. Our results reveal that, apart from culture, other factors, such as the learners’ mother tongues, their motivations and beliefs on studying Chinese, learners’ Chinese language proficiency levels, may also play important roles in their selections of LLS.

The current study compares heritage and non-heritage UK Chinese students’ individual variables, such as their motivations in learning Chinese, their language learning beliefs, their perceptions of Chinese language learning strategies, and the relationships between these related variables. By doing so, the current study has significance and implications for Chinese language pedagogy for both CHL and NCHL students. As Y. Wu (2004b) suggested, the purpose of studying CFL/CSL learning strategies is to optimize our pedagogical methods (p. 72). The purpose for studying CHL and NCHL students’ LLS use is likewise to optimize our pedagogical



methods of teaching CHL and NCHL students. The results obtained from this study provide insights into heritage language learning among Chinese students in the UK, and have implications for heritage language pedagogy. By understanding CHL students' different characteristics, for example they use more cognitive, memory, and metacognitive strategies than NCHL students, teachers should be conscious and to teach them differently, and should be very cautious about the use of teaching methods, which will affect students' language learning beliefs, their selections of LLS, and ultimately their acquisition of Chinese language.

As reported earlier in Section 1.1, many UK higher education sectors and secondary schools treat heritage Chinese students as foreign language students and place them with non-heritage students in the same class. This practice has posed challenges and difficulties to both teachers and students (Kondo-Brown 2001; Chen and Che 2009). Evidence obtained through the current study suggests that CHL and NCHL students have very different constructs and characteristics with regard to their motivation, leaning beliefs, and learning strategies. In addition, this study also reveals that mother tongue can best predict what strategies that CHL students' general LLS use, as well as some subcategories of LLS that NCHL students might use. Furthermore, CHL students' LLB, proficiency level, and intrinsic motivation could also indicate what strategies that CHL students might use. All of these point to the conclusion that placing CHL and NCHL students into separate tracks will be a better pedagogical option for their Chinese study. The students will benefit more to sit with those from similar backgrounds and with similar kind of knowledge, similar kind of cognitive behavior, and similar mindset. Some might argue that students may gain intercultural experiences by sitting with those from different cultural backgrounds. It is by all means true. Yet, this practice posed problems for students' Chinese language learning not only for tutors and classmates, but for these students as well (Kondo-Brown 2001; Chen and Che 2009).

Furthermore, it is believed that heritage Chinese students could become an important source of talent for state schools. Complementary/community schools for Chinese students could more effectively contribute to national needs if those schools,

secondary schools, and higher education institutions were to work together to enhance Chinese language education in the UK. ‘Our Languages’ – a consortium of four organizations: CILT (the National Centre for Languages), the National Resource Centre for Supplementary Education, SSAT (the Specialist Schools and Academies Trust) and the School Development Support Agency, launched in September, 2007, has been providing support for community languages teaching; and has been working to foster collaboration between the complementary and mainstream school sectors (please refer to its website). Teacher partnerships between primary schools and complementary schools have been set up in East London (Kenner et al. 2010). It is hoped that collaboration and partnership will be extended to community schools, state and private schools, and universities, through which a key for learning success and excellence may be offered.

With a view to making more effective use of such community resources and therefore enhancing heritage Chinese language learning, we offer the following suggestions:

- Provide a separate track for the needs of most heritage language students, using proficiency as an additional criterion when necessary;
- Instead of teaching heritage and non-heritage Chinese students in the same way, teach them according to their attributes – their different learning motivations, their different learning beliefs, and their different learning strategies, and other different learning characteristics;
- Promote articulation and cooperation among community schools, secondary schools, and higher education institutions to avoid wasting of heritage Chinese language learners’ resources.

### **8.3 Limitations of the Study**

This study has certain limitations due to circumstantial constraints. One limitation is: as there has been little empirical research on Chinese language learning strategies, heritage Chinese students’ learning strategy, or on heritage Chinese students’ learning beliefs, the number of instruments available for conducting research in these

areas is limited. Some, such as Grainger (2005), suspect that the most widely used instruments, such as Oxford's SILL and Horwitz's BALLI, may not be ideal for research on Chinese as a second/foreign language because Chinese is different from European languages in some respects, such as orthography and grammar. If this objection holds, then this limitation could affect the significance of the current study's results. However, researchers, such as Jiang (2000) and Y. Wu (2007) support the validity and reliability of using SILL as an instrument for Chinese language studies. Likewise, the current study employed SILL categories – cognitive, metacognitive, compensation and so on. These categories appeared to have genuine relevance for understanding learner strategies in Chinese language learning.

Having said this, it is fair to note that there remains a need for more refined instruments for investigating Chinese language learning. For example, our study of motivation did not test for self-improvement or health benefits, yet these emerged in the qualitative interviews as possible motivations for learning Chinese. Also, while heritage learners' greater familiarity with the language helps to explain their foreign language aptitude, the difficulty of language learning, the nature of language learning, learning and communication strategies, and motivations and expectation, our instruments did not measure pedagogically significant differences among heritage learners, particularly with regard to the four skills. For instance, Cantonese speakers may find few obstacles to listening comprehension or reading, but may experience special difficulty learning pronunciation, or proper phrasing when composing written documents. SILL and BALLI do not facilitate the detection of such differences.

Another limitation stems from the fact that the language learning behaviors and needs of heritage language learners are different from those of traditional foreign language learners (in fact, the differences are not just between HLLs and NHLLs, the differences might be also existed among different subgroups within HLLs, for example, Cantonese and Hakka speakers of Chinese Heritage Language). One might argue it is not fair to compare HLLs and NHLLs as previous research and the current study have done. However, the truth is: in reality HLLs are often seen mixed in with other NHLLs learning Chinese, e.g., at Newcastle University, at Sunderland

University, at Warwick University, at Regents College, and at many other higher and secondary institutions in the UK and worldwide as well. Although one might argue that mixing the two distinctive groups into the same class might offer students' unique intercultural communication experiences, this practice in fact, has been proved difficult for students' Chinese language learning to both teachers and students, and to both HLLs and NHLLs, as it has posed great problems for them (Kondo-Brown 2001; Chen and Che 2009). Further research is therefore needed in this area.

#### **8.4 Suggestions for Further Research**

The current study has examined and compared students' perceptions of Chinese language learning strategies, together with the relationships between LLS use and individual variables such as proficiency level, motivation, and language learning beliefs, and the perceptions of language learning strategies, as well as other variables for instance gender, age, and mother tongue, between two distinctive learning groups: heritage and non-heritage Chinese students. Therefore this study enables us to gain theoretical and pedagogical insights into how these two groups of students learn Chinese. In order to further understand the needs of heritage Chinese students, more research will be necessary with regard to:

- 1) What constitutes good learning strategies for CHL and NCHL students?

Because, as this study's findings suggest, separating CHL and NCHL learners is necessary to achieve optimum results, it is imperative to learn more about both the differences and similarities between CHL and NCHL learners. This need was already recognized by Lynch (2003a) when he called for research that could 'explain fully the extent of the differences between these two groups, and to understand and explain fully the similarities between them' (p. 13). A good grasp of similarities between these groups will be needed in order to better meet the needs of CHL and NCHL learners. Such knowledge would also be helpful for situations in which Chinese community schools, whose students are CHL learners, cooperate closely with secondary schools and colleges, many of whose students are NCHL learners.

- 2) How to achieve a better understanding of Chinese language learning strategies

with respect to the four skills, compared to non-heritage Chinese students? This would require comparative studies of CHL and NCHL learning strategies in separate categories such as reading, writing, etc. This is important because CHL students with different dialect backgrounds may possess different skill sets and learning needs. For example, Cantonese speakers may need extra work in pronunciation and intonation, while requiring less help with grammar. If such needs are better understood, more effective teaching strategies could be devised.

- 3) How should the realities of language learning among heritage and non-heritage students be reflected in public policy or regulation? Progress in this area could be advanced by developing better ways to enhance cooperation among Chinese community schools, secondary schools, and higher education institutions. Such cooperation could at once make the linguistic and cultural resources of heritage communities more readily available to language students in state and private schools, and might also contribute to the effectiveness of language training within these communities.
- 4) What are the characteristics of Chinese as a heritage language compared to other heritage languages? This study's main concern is to see any differences between heritage and non-heritage Chinese students. However, as the status of China is likely to have a differential impact on CHL and NCHL students, therefore Chinese as a heritage language perhaps is more 'special' than other heritage languages. It might be worthy then to compare issues between Chinese as a heritage language and other heritage languages, such as Japanese. Furthermore, considering that CHL students in the UK come from different dialect backgrounds (Cantonese, Hakka, Mandarin, etc.), it would be valuable to compare their LLS use among these groups when an opportunity arises to examine whether there are any differences among subgroups of heritage Chinese students, e.g., Cantonese, Hakka, and Mandarin speakers. To date, whether dialects, such as Mandarin, Cantonese, or Hakka may affect LLS use has not been investigated in the area of SLA, FLA, or HLA, which will be worth examining in future.

## 8.5 Conclusion

This research has established that there are great differences between heritage language learners (HLLs) and non-heritage language learners (NHLLs) – traditionally foreign language learners (FLLs), just as Brecht and Ingold (2002) argued that heritage language speakers possess linguistic and cultural skills rarely attained by non-heritage language speakers. By comparing these two groups in different aspects, such as their motivations, learning beliefs, and learning strategies, and the relationships between these variables, together with other variables, such as gender, age and mother tongue, we know better the different characteristics of the two distinctively different group learners.

We hope this study will have positive impact for the practice, in addition to its contribution to the Second Language Acquisition and to Chinese language teaching, including Chinese as heritage language pedagogy. Furthermore, as the status of China is likely to have some, probably different impact for CHL and for NCHL students, it makes Chinese as an HL maybe more ‘special’ than other HLs. It may be worthwhile, in future, to examine more Chinese as a heritage language, for example between different dialect speakers, and compare it with other heritage languages, for instance, what, if any, different background, societal power and status of these languages are. But for now, these are beyond our scope for the current study.

V. J. Cook (2001, 2009b) pointed out that we cannot teach very well if we do not know how it is that people learn, and teaching is only successful if it promotes learning in students (2009b, p. 139). Equally, we will not be able to teach heritage Chinese students well if we do not know what motivates them to learn and how they learn. The current study reveals that, for example: CHL students were more intrinsically motivated, whereas NCHL students were more extrinsically motivated; CHL students used significantly more memory strategies, cognitive strategies, and metacognitive strategies, whereas NCHL students used significantly more compensation strategies, social strategies, and affective strategies; and CHL students felt less difficult in studying Chinese and therefore they thought less time was needed to study Chinese well than NCHL felt, and so on and so forth. It is hoped

that the current study is a contribution to a better understanding of this group of Chinese language students, and through this enhanced understanding, students' Chinese language learning can be promoted and Chinese language teaching can be more effective. It is also hoped that this study may further improve understanding of non-heritage Chinese students, by which non-heritage Chinese students' Chinese language learning and teaching will be further advanced. Therefore this study will be theoretically and pedagogically significant in Second Language Acquisition and Chinese Language Pedagogy, in particular Heritage Chinese Language Pedagogy.

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## Appendices

## Appendix A: Questionnaires Used in the Pilot Study

### A: Consent Form

My name is Yunzhen Liu. I am a doctoral student at the University of Newcastle upon Tyne in the educational and applied linguistics program. We are conducting a study on Mandarin Chinese learners' learning strategies. Our aim is to find out whether there are differences in using learning strategies between different learners, and what affect their selection of strategies. You are invited to participate in this study because you are a Mandarin Chinese learner.

It is completely voluntary to participate in this study. Your decision whether or not to participate will not affect you in any way. However, this study may provide you with an interesting opportunity to understand what you think and feel about learning Mandarin Chinese. Any information you provide, which will of course be kept CONFIDENTIAL, will no doubt help us better understand your Chinese language learning and will be invaluable for this study.

Should you have any questions or comments, please feel free to contact me via email: [yunzhenliu@ncl.ac.uk](mailto:yunzhenliu@ncl.ac.uk). If you would like, I will discuss the result with you when this study is concluded.

Thank you very much for your cooperation in advance.

Name of participant \_\_\_\_\_

Affiliation \_\_\_\_\_

Course you are studying \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_



**B: Background Information**

Please answer the following questions or check the appropriate response. This is for research purpose only, and your response will be kept in confidential at all times.

- 1. You are: male \_\_\_\_\_ , female \_\_\_\_\_
- 2. Your age: \_\_\_\_\_
- 3. Country of origin: \_\_\_\_\_
- 4. Country of residence: \_\_\_\_\_
- 5. Where were you born? \_\_\_\_\_
- 6. If you were not born in the UK, how old were you when you arrived in this country?  
Does not apply, I was born in the UK \_\_\_\_\_  
0 – 2 years \_\_\_\_\_, 2 – 5 years \_\_\_\_\_, 6 – 10 years \_\_\_\_\_,  
11 – 13 years \_\_\_\_\_, 14 – 18 years \_\_\_\_\_, over 18 \_\_\_\_\_

- 7. Your native language is:
  - 1) English \_\_\_\_\_
  - 2) Spanish \_\_\_\_\_
  - 3) French \_\_\_\_\_
  - 4) Japanese \_\_\_\_\_
  - 5) Cantonese \_\_\_\_\_
  - 6) Hakka \_\_\_\_\_
  - 7) Other \_\_\_\_\_

- 8. How well do your parents and siblings know Mandarin Chinese?  
Please tick the option/s that seem/s right to you. Please answer only about family members who live with you at home.

Father	No Mandarin	0	1	2	3	4	Very good
Mother	No Mandarin	0	1	2	3	4	Very good
Sibling1	No Mandarin	0	1	2	3	4	Very good
Sibling2	No Mandarin	0	1	2	3	4	Very good
Sibling3	No Mandarin	0	1	2	3	4	Very good
Sibling4	No Mandarin	0	1	2	3	4	Very good

Ages of your siblings:  
Sibling 1 \_\_\_\_\_, Sibling 2 \_\_\_\_\_, Sibling 3 \_\_\_\_\_, Sibling 4 \_\_\_\_\_

- 9. Does anyone from your family speak other Chinese language, such as Cantonese?  
No \_\_\_\_\_ Yes \_\_\_\_\_, please specify: who \_\_\_\_\_ speaks \_\_\_\_\_
- 10. Do you live with your parents? Yes \_\_\_\_\_ No \_\_\_\_\_
- 11. What language do you speak at home with your parents/family? \_\_\_\_\_
- 12. What language do you speak with your friends? \_\_\_\_\_
- 13. What language do you speak most of time? \_\_\_\_\_

14. Are you a/an:  
 Postgraduate \_\_\_\_\_ Undergraduate \_\_\_\_\_ Non-degree student \_\_\_\_\_  
 High School student \_\_\_\_\_ Other, please specify: \_\_\_\_\_
15. How long have you studied Mandarin Chinese?  
 1-3 months \_\_\_\_\_, 3-6 months \_\_\_\_\_, 6 month-1year \_\_\_\_\_, 1-2 years \_\_\_\_\_, other \_\_\_\_\_
16. Where are you studying Mandarin Chinese? \_\_\_\_\_
17. Ways you have used in studying Mandarin Chinese, tick as many as apply:  
 1) Language lessons at school, college or university \_\_\_\_\_  
 2) 'One to one' lessons with a teacher \_\_\_\_\_  
 3) Group lessons with a teacher \_\_\_\_\_  
 4) Language course in China \_\_\_\_\_  
 5) Talking informally to a native speaker \_\_\_\_\_  
 6) Conversation exchanges with a native speaker (e.g., one hour of your language, one hour of Mandarin) \_\_\_\_\_  
 7) Teaching myself by watching TV or listening to the radio \_\_\_\_\_  
 8) Teaching myself by using the internet or interactive CD-ROM, DVD's \_\_\_\_\_  
 9) Teaching myself by reading books \_\_\_\_\_  
 10) Other, please specify \_\_\_\_\_
18. How many hours do you study Mandarin Chinese in class per week?  
 2hs \_\_\_\_\_ 3hs \_\_\_\_\_, 4hs \_\_\_\_\_, 5hs \_\_\_\_\_, other (please specify) \_\_\_\_\_
19. How many hours do you study Chinese outside of class per week?  
 1- 5hs \_\_\_\_\_, 5-10hs \_\_\_\_\_, 11-15hs \_\_\_\_\_, 16-20hs \_\_\_\_\_, over 20hs \_\_\_\_\_
20. Why do you choose to study Mandarin Chinese? Name 8 reasons in the order of the importance.  
 1) Mandarin Chinese is interesting \_\_\_\_\_  
 2) Useful when travelling to China \_\_\_\_\_  
 3) To prepare for travel in my country of origin \_\_\_\_\_  
 4) To be able to work in China or Chinese speaking area \_\_\_\_\_  
 5) To get a better job in the UK \_\_\_\_\_  
 6) My parents' requirement \_\_\_\_\_  
 7) Friends' influence \_\_\_\_\_  
 8) To communicate better with family and friends in the UK \_\_\_\_\_  
 9) To communicate better with family and friends abroad \_\_\_\_\_  
 10) To watch Chinese films and read Chinese literatures \_\_\_\_\_  
 11) Chinese culture \_\_\_\_\_  
 12) To learn about my original culture and language roots \_\_\_\_\_  
 13) To fulfill a language requirement \_\_\_\_\_  
 14) Because it is easy for me \_\_\_\_\_  
 15) For personal satisfaction \_\_\_\_\_  
 16) For a relationship with a Chinese \_\_\_\_\_  
 17) To become Chinese-like \_\_\_\_\_  
 18) Because many people in the world are studying Mandarin Chinese \_\_\_\_\_  
 19) To be multilingual \_\_\_\_\_  
 20) Other (list) \_\_\_\_\_

21. My goal in learning Chinese to become fluent in  
 Reading\_\_\_\_\_ Writing\_\_\_\_\_ Speaking\_\_\_\_\_ Listening\_\_\_\_\_ All of these\_\_\_\_
22. How important is it for you to become proficient in Mandarin Chinese?  
 Reading: Not so important      1      2      3      4      5      Very important  
 Writing: Not so important      1      2      3      4      5      Very important  
 Listening: Not so important      1      2      3      4      5      Very important  
 Speaking: Not so important      1      2      3      4      5      Very important
23. Have you been to a Mandarin speaking area? Yes\_\_\_\_\_ No\_\_\_\_\_  
 If yes, how long\_\_\_\_\_, where \_\_\_\_\_?
24. What community do you feel a part of:  
 Geordie \_\_\_\_\_ Cantonese\_\_\_\_\_ British\_\_\_\_\_ Mandarin\_\_\_\_\_  
 Other, please specify \_\_\_\_\_
25. What do you rate your overall proficiency in Chinese language as compared with the proficiency of native speakers of Chinese?
- |           |      |   |   |   |   |   |             |
|-----------|------|---|---|---|---|---|-------------|
| Reading   | none | 0 | 1 | 2 | 3 | 4 | native-like |
| Writing   | none | 0 | 1 | 2 | 3 | 4 | native-like |
| Speaking  | none | 0 | 1 | 2 | 3 | 4 | native-like |
| Listening | none | 0 | 1 | 2 | 3 | 4 | native-like |

26. Please answer the following question in 4 – 6 sentences:

How has your studying of Mandarin Chinese affected your experience in or outside of school? Can you remember an incident when your Mandarin Chinese was helpful or caused you problems in any of these settings?

### C: What I believe about language learning

Below are beliefs that you may have about learning Foreign Languages. Read each statement and circle the right number.

**Note: (there are no right or wrong answers)**

**1 Strongly disagree; 2 Disagree; 3 Neither disagree nor agree; 4 Agree; 5 Strongly agree.**

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 1. It is easier for children than adults to learn a foreign language.                               | 1 | 2 | 3 | 4 | 5 |
| 2. Some people have a special ability for learning Foreign Languages.                               | 1 | 2 | 3 | 4 | 5 |
| 3. Some languages are easier to learn than others.  | 1 | 2 | 3 | 4 | 5 |
| 4. Mandarin Chinese is:   |   |   |   |   |   |
| 1) a very difficult language  |   |   |   |   |   |
| 2) a difficult language   | 1 | 2 | 3 | 4 | 5 |
| 3) a language of medium difficulty  |   |   |   |   |   |
| 4) an easy language   |   |   |   |   |   |
| 5) a very easy language   |   |   |   |   |   |
| 5. I believe that I will ultimately learn to speak Mandarin very well.                              | 1 | 2 | 3 | 4 | 5 |
| 6. People from my country are good at learning Foreign Languages.                                   | 1 | 2 | 3 | 4 | 5 |
| 7. It is important to speak Mandarin Chinese with excellent pronunciation.                          | 1 | 2 | 3 | 4 | 5 |
| 8. It is necessary to know about Chinese cultures in order to learn to speak Mandarin Chinese well. | 1 | 2 | 3 | 4 | 5 |
| 9. You shouldn't say anything in Mandarin Chinese until you can say it correctly.                   | 1 | 2 | 3 | 4 | 5 |
| 10. It is easier for someone who already speaks a foreign language to learn another one.            | 1 | 2 | 3 | 4 | 5 |

11. People who are good at mathematics or science are not good at learning Foreign Languages. 1 2 3 4 5
12. It is best to learn Mandarin Chinese in a Mandarin Chinese speaking environment. 1 2 3 4 5
13. I enjoy practicing Chinese with Chinese people that I meet. 1 2 3 4 5
14. It's O.K. to guess if you don't know a word in Chinese. 1 2 3 4 5
15. If someone spent one hour a day learning a language, how long would it take them to speak the language very well:  
 1) You can't learn a language in one hour a day  
 2) 5 – 10 years  
 3) 3 – 5 years  
 4) 1 – 2 years  
 5) Less than a year
16. I have a special ability for learning foreign languages. 1 2 3 4 5
17. The most important part of learning a foreign language is learning vocabulary words. 1 2 3 4 5
18. It is important to repeat and practice a lot. 1 2 3 4 5
19. Women are better than men at learning foreign languages. 1 2 3 4 5
20. People in my country feel that it is important to speak Mandarin Chinese. 1 2 3 4 5
21. I feel timid speaking Chinese with other people. 1 2 3 4 5
22. If beginning students are permitted to make errors in Chinese, it will be difficult for them to speak correctly later on. 1 2 3 4 5

23. The most important part of learning a foreign language is learning the grammar. 1 2 3 4 5
24. I would like to learn Mandarin Chinese so that I can get to know Chinese people better. 1 2 3 4 5
25. It is easier to speak than understand a foreign language. 1 2 3 4 5
26. It is important to practice with cassettes or tapes. 1 2 3 4 5
27. Learning a foreign language is different than learning other academic subjects. 1 2 3 4 5
28. The most important part of learning Chinese is learning how to translate from my native language. 1 2 3 4 5
29. If I learn Chinese very well, I will have better opportunities for a good job. 1 2 3 4 5
30. People who speak more than one language are very intelligent. 1 2 3 4 5
31. I want to learn to speak Chinese well. 1 2 3 4 5
32. I would like to have Chinese friends. 1 2 3 4 5
33. Everyone can learn to speak a foreign language. 1 2 3 4 5
34. It is easier to read and write Chinese than to speak and understand it. 1 2 3 4 5
35. I want to learn to write Chinese well. 1 2 3 4 5
36. Students should start with Roman letter (pinyin) when they begin to learn Chinese. 1 2 3 4 5
37. Chinese Characters should be introduced as early as possible. 1 2 3 4 5
38. I believe that the pronunciation of Chinese is the most difficult part of learning Chinese. 1 2 3 4 5

39. I believe that learning Chinese characters is the most difficult part of learning Chinese. 1 2 3 4 5

40. I believe that if I can recognize the meaning of the Chinese characters, it is not important to be able to write the Chinese Characters. 1 2 3 4 5

41. Compared with Chinese language class, learning Chinese in Chinese society is more important and useful. 1 2 3 4 5

42. Do you have any other beliefs about learning Chinese, which are not mentioned above?  
If yes, please list:

## D: How do I learn Mandarin Chinese?

Please read each statement, and mark the response (1, 2, 3, 4, or 5) that tells how often you actually do when you are learning Mandarin Chinese.

- 1. Never or almost never do this   2. Generally not do this**  
**3. Somewhat do this   4. Generally do this   5. Always do this**

(Note: this applies to the whole Section D)

### Part A

#### **When learning a new word...**

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 1. I create associations between new material and what I already know.                                      | 1 | 2 | 3 | 4 | 5 |
| 2. I put the new word in a sentence so I can remember it.   | 1 | 2 | 3 | 4 | 5 |
| 3. I place the new word in a group with other words that are similar in some way.                           | 1 | 2 | 3 | 4 | 5 |
| 4. I associate the sound of the new word with the sound of a familiar word.                                 | 1 | 2 | 3 | 4 | 5 |
| 5. I use rhyming to remember it.  | 1 | 2 | 3 | 4 | 5 |
| 6. I remember the word by making a clear mental image of it or by drawing a picture.                        | 1 | 2 | 3 | 4 | 5 |
| 7. I visualize the spelling of the new word in my mind.   | 1 | 2 | 3 | 4 | 5 |
| 8. I use a combination of sounds and images to remember the new word.                                       | 1 | 2 | 3 | 4 | 5 |
| 9. I list all the other words I know that are related to the new word and draw lines to show relationships. | 1 | 2 | 3 | 4 | 5 |
| 10. I remember where the new word is located on the page or where I first saw or heard it.                  | 1 | 2 | 3 | 4 | 5 |



11. I use flashcards with the new word on one side and the definition or other information on the other. 1 2 3 4 5

12. I physically act out the new word. 1 2 3 4 5

**When learning new material....**

13. I revise often. 1 2 3 4 5

14. I schedule my reviewing so that the review sessions are initially close together in time and gradually become more widely spread apart. 1 2 3 4 5

15. I go back to refresh my memory of things I learned much earlier. 1 2 3 4 5

**Part B**

16. I say or write new expressions repeatedly to practice them. 1 2 3 4 5

17. I imitate the way native speakers talk. 1 2 3 4 5

18. I read a story or dialogue several times until I can understand it. 1 2 3 4 5

19. I revise what I write in Mandarin Chinese to improve my writing. 1 2 3 4 5

20. I practice the sounds or alphabet of Mandarin Chinese. 1 2 3 4 5

21. I use idioms or other routines in Mandarin Chinese. 1 2 3 4 5

22. I use familiar words in different combinations to make new sentences. 1 2 3 4 5

23. I initiate conversations in Chinese. 1 2 3 4 5

24. I try to think in Chinese. 1 2 3 4 5

25. I watch TV shows or movies or listen to the radio in Chinese.	1	2	3	4	5
26. I try to think in Chinese.	1	2	3	4	5
27. I read for pleasure in Chinese.	1	2	3	4	5
28. I write personal notes, messages, letters, or reports in Chinese.	1	2	3	4	5
29. I skim the reading passage first to get the main idea, then I go back and read it more carefully.	1	2	3	4	5
30. I seek specific details in what I hear or read.	1	2	3	4	5
31. I use reference materials such as glossaries or dictionaries to help me use Mandarin Chinese.	1	2	3	4	5
32. I take notes in class in Mandarin Chinese.	1	2	3	4	5
33. I make summaries of new language material.	1	2	3	4	5
34. I apply general rules to new situations when using Chinese.	1	2	3	4	5
35. I find the meaning of a word by dividing the word into parts which I understand.	1	2	3	4	5
36. I look for similarities and contrasts between the new language and my own.	1	2	3	4	5
37. I try to understand what I have heard or read without translating it word-for-word into my own language.	1	2	3	4	5
38. I am cautious about transferring words or concepts directly from my language to Mandarin Chinese.	1	2	3	4	5
39. I look for patterns in Chinese.	1	2	3	4	5
40. I develop my own understanding of how Mandarin Chinese works, even if sometimes I have to revise	1	2	3	4	5

my understanding based on new information.

### **Part C**

- |  |   |   |   |   |   |
|--|---|---|---|---|---|
| 41. When I do not understand all the words I read or hear, I guess the general meaning by using any clue I can find, for example, clues from the context or situation. | 1 | 2 | 3 | 4 | 5 |
| 42. I read without looking up every unfamiliar word.   | 1 | 2 | 3 | 4 | 5 |
| 43. In a conversation I anticipate what the other person is going to say based on what has been said so far.   | 1 | 2 | 3 | 4 | 5 |
| 44. If I am speaking and cannot think of the right expression, I use gestures or switch back to my own language momentarily.   | 1 | 2 | 3 | 4 | 5 |
| 45. I ask the other person to tell me the right word if I cannot think of it in a conversation.  | 1 | 2 | 3 | 4 | 5 |
| 46. When I cannot think of the correct expression to say or write, I find a different way to express the idea, for example, I use a synonym or describe the idea.      | 1 | 2 | 3 | 4 | 5 |
| 47. I make up new words if I do not know the right ones.   | 1 | 2 | 3 | 4 | 5 |
| 48. I direct the conversation to a topic for which I know the words.   | 1 | 2 | 3 | 4 | 5 |

### **Part D**

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 49. I preview the language lesson to get a general idea of what it is about, how it is organized and how it relates to what I already know. | 1 | 2 | 3 | 4 | 5 |
| 50. When someone is speaking Mandarin Chinese I try to concentrate on what the person is saying and put unrelated topics out of my mind.    | 1 | 2 | 3 | 4 | 5 |

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 51. I decide in advance to pay special attention to specific language aspects, for example, I focus the way native speakers pronounce certain sounds.                               | 1 | 2 | 3 | 4 | 5 |
| 52. I try to find out all I can about how to be a better language learner by reading books or articles, or by talking with others about how to learn.                               | 1 | 2 | 3 | 4 | 5 |
| 53. I arrange my schedule to study and practice Mandarin Chinese consistently, not just when there is the pressure of test.   | 1 | 2 | 3 | 4 | 5 |
| 54. I arrange my physical environment to promote learning, for instance, I find a quiet, comfortable place, and I wish I had a palace to review.                                    | 1 | 2 | 3 | 4 | 5 |
| 55. I organize my language notebook to record important language information.   | 1 | 2 | 3 | 4 | 5 |
| 56. I plan my goals for Chinese learning, for instance, how proficient I want to become or how I might want to use Chinese in the long run.   | 1 | 2 | 3 | 4 | 5 |
| 57. I plan what I am going to accomplish in Mandarin Chinese learning each day or each week.  | 1 | 2 | 3 | 4 | 5 |
| 58. I prepare for an upcoming language task (such as giving a talk in Mandarin Chinese) by considering the nature of the task, what I have to know, and my current language skills. | 1 | 2 | 3 | 4 | 5 |
| 59. I clearly identify the purpose of the language actively, for instance, in a listening task I might need to listen for the general idea or for specific facts.                   | 1 | 2 | 3 | 4 | 5 |
| 60. I take responsibility for finding opportunities to practice Chinese.  | 1 | 2 | 3 | 4 | 5 |

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 61. I actively look for people with whom I can speak Chinese.             | 1 | 2 | 3 | 4 | 5 |
| 62. I try to notice my language errors and find out the reasons for them. | 1 | 2 | 3 | 4 | 5 |
| 63. I learn from my mistakes in using Mandarin Chinese.                   | 1 | 2 | 3 | 4 | 5 |
| 64. I evaluate the general progress I have made in learning the language. | 1 | 2 | 3 | 4 | 5 |

**Part E**

- |  |   |   |   |   |   |
|--|---|---|---|---|---|
| 65. I try to relax whenever I feel anxious about using Mandarin Chinese.   | 1 | 2 | 3 | 4 | 5 |
| 66. I make encouraging statements to myself so that I will continue to try hard and do my best in Mandarin Chinese learning.   | 1 | 2 | 3 | 4 | 5 |
| 67. I actively encourage myself to take wise risks in Mandarin Chinese learning, such as guessing meanings or trying to speak, even though I might make some mistakes. | 1 | 2 | 3 | 4 | 5 |
| 68. I give myself a tangible reward when I have done something well in my Mandarin Chinese learning.   | 1 | 2 | 3 | 4 | 5 |
| 69. I pay attention to physical signs of stress that might affect my Chinese learning.   | 1 | 2 | 3 | 4 | 5 |
| 70. I keep a private diary or journal where I write my feelings about Mandarin Chinese learning.   | 1 | 2 | 3 | 4 | 5 |
| 71. I talk to someone I trust about my attitudes and feelings concerning the Chinese learning process.   | 1 | 2 | 3 | 4 | 5 |

**Part F**

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 72. If I do not understand, I ask the speaker to slow down, repeat, or clarify what was said. | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|

- |  |   |   |   |   |   |
|--|---|---|---|---|---|
| 73. I ask other people to verify that I have understood or said something correctly.   | 1 | 2 | 3 | 4 | 5 |
| 74. I ask other people to correct my pronunciation.  | 1 | 2 | 3 | 4 | 5 |
| 75. I work with other Mandarin Chinese language learners to practice, review, or share information.                                      | 1 | 2 | 3 | 4 | 5 |
| 76. I have a regular Mandarin Chinese language learning partner.   | 1 | 2 | 3 | 4 | 5 |
| 77. When I am talking with a native speaker, I try to let him or her know when I need help.  | 1 | 2 | 3 | 4 | 5 |
| 78. In conversation with others in Mandarin Chinese, I ask questions in order to be as involved as possible and to show I am interested. | 1 | 2 | 3 | 4 | 5 |
| 79. I try to learn about the Chinese culture.  | 1 | 2 | 3 | 4 | 5 |
| 80. I pay close attention to the thoughts and feelings of other people with whom I interact in Chinese.                                  | 1 | 2 | 3 | 4 | 5 |

**E: Comments and advices on this survey:**

**F. Final remarks:**

We would love to talk to you about your Mandarin study and your learning methods. If you would like to participate, please leave your contact information here:

Email address: \_\_\_\_\_

Tel: \_\_\_\_\_

Thanks very much for your time and your cooperation ☺

## **Appendix B: Questionnaires Used in the Main Study**

### **Consent Form**

#### **CHINESE HERITAGE AND NON-HERITAGE LEARNERS' LEARNING STRATEGIES: A COMPARATIVE STUDY**

My name is Yunzhen Liu. I am a doctorate student at the University of Newcastle upon Tyne in the educational and applied linguistics program. We are conducting a study on Chinese heritage and non-heritage learners' learning strategies: a Comparative Study. You are selected and invited to participate in this study because you are a Chinese learner, either heritage or non-heritage.

It is completely voluntary to participate in this study. Your decision whether or not to participate will not affect you in any way. However, this study will provide you an interesting opportunity to understand what you think and feel about learning Chinese-a minority foreign language taught in the UK. Any information you provide, which will be kept CONFIDENTIAL, will no doubt help us better understand your Chinese language learning and will be invaluable for this study and the Chinese pedagogy.

Should you have any questions or comments, please feel free to contact me via email: [yunzhen.liu@ncl.ac.uk](mailto:yunzhen.liu@ncl.ac.uk). If you would like, I will discuss the result with you when this study is concluded.

Thank you very much for your cooperation in advance.

Name of participant \_\_\_\_\_

Signature of participant \_\_\_\_\_

Date \_\_\_\_\_

## QUESTIONNAIRE

### A: Background Information

1. Name \_\_\_\_\_ 2. Date \_\_\_\_\_

3. Age \_\_\_\_\_ 4. Sex \_\_\_\_\_ 5. Mother Tongue \_\_\_\_\_

6. Nationality \_\_\_\_\_ 7. Ethnicity \_\_\_\_\_

8. Is there anyone from your family a Chinese Ethnicity?

No \_\_\_\_\_ Yes \_\_\_\_\_ (please specify)

9. Does anyone from your family speak Chinese, such as Mandarin or Cantonese?

No \_\_\_\_\_ Yes \_\_\_\_\_ (please specify): who: \_\_\_\_\_ speaks: \_\_\_\_\_

10. What language do you speak? At home: \_\_\_\_\_, other time: \_\_\_\_\_

11. Where are you studying Mandarin Chinese? \_\_\_\_\_

12. What is the name of your Mandarin course (if you are taking one)? \_\_\_\_\_

13. How long have you studied Mandarin Chinese? \_\_\_\_\_ year/s

14. How many hours do you study Mandarin Chinese per week?

In class: \_\_\_\_\_ hours; outside of class: \_\_\_\_\_ hours

15. Why did you choose to study Mandarin Chinese? Name 8 reasons in the order of importance.

1) Mandarin Chinese is interesting \_\_\_\_\_

2) Useful when travelling \_\_\_\_\_

3) To get a better job \_\_\_\_\_

4) Parents or friends' suggestion or influence \_\_\_\_\_

5) To communicate better with family and friends \_\_\_\_\_

6) To watch Chinese films and read Chinese literature \_\_\_\_\_

7) Interest in Chinese culture \_\_\_\_\_



- 8) To learn about my original culture and language roots \_\_\_\_\_
- 9) To fulfill a language requirement \_\_\_\_\_
- 10) For personal satisfaction \_\_\_\_\_
- 11) To have a relationship with a Chinese person \_\_\_\_\_
- 12) Other (specify) \_\_\_\_\_

16. How do you rate your overall proficiency in Chinese language as compared with the proficiency of native speakers of Chinese?

Reading	none	0	1	2	3	4	near-native
Writing	none	0	1	2	3	4	near-native
Speaking	none	0	1	2	3	4	near-native
Listening	none	0	1	2	3	4	near-native

## **B: What I believe about language learning**

Below are beliefs that people may have about learning Foreign Languages. Read each statement and decide if you:

- 1. Strongly disagree; 2. Disagree; 3. Neither disagree nor agree; 4. Agree; 5. Strongly agree.**

**Note:** there are no right or wrong answers, please share your honest opinion and circle the right number.

- |  |   |   |   |   |   |
|--|---|---|---|---|---|
| 1. It is easier for children than adults to learn a foreign language.                              | 1 | 2 | 3 | 4 | 5 |
| 2. Some people have a special ability for learning foreign languages.                              | 1 | 2 | 3 | 4 | 5 |
| 3. Some languages are easier to learn than others.   | 1 | 2 | 3 | 4 | 5 |
| 4. Mandarin Chinese is:  | 1 | 2 | 3 | 4 | 5 |
| 1) a very difficult language   |   |   |   |   |   |
| 2) a difficult language  |   |   |   |   |   |
| 3) a medium difficult language   |   |   |   |   |   |
| 4) an easy language  |   |   |   |   |   |
| 5) a very easy language  |   |   |   |   |   |
| 5. I believe that I will ultimately learn to speak Mandarin very well.                             | 1 | 2 | 3 | 4 | 5 |
| 6. People from my country are good at learning foreign languages.                                  | 1 | 2 | 3 | 4 | 5 |
| 7. It is important to speak Mandarin Chinese with excellent pronunciation.                         | 1 | 2 | 3 | 4 | 5 |
| 8. It is necessary to know about Chinese Culture in order to learn to speak Mandarin Chinese well. | 1 | 2 | 3 | 4 | 5 |
| 9. You shouldn't say anything in Mandarin Chinese until you can say it correctly.                  | 1 | 2 | 3 | 4 | 5 |
| 10. It is easier for someone who already speaks a foreign language to learn another one.           | 1 | 2 | 3 | 4 | 5 |
| 11. People who are good at mathematics or science are not good at learning foreign languages.      | 1 | 2 | 3 | 4 | 5 |

12. It is best to learn Mandarin Chinese in a Mandarin Chinese speaking environment.	1	2	3	4	5
13. I enjoy practicing Chinese with Chinese people that I meet.	1	2	3	4	5
14. It's O.K. to guess if you don't know a word in Chinese.	1	2	3	4	5
15. If someone spent one hour a day learning Chinese, how long would it take them to learn it very well:	1	2	3	4	5
1) You can't learn a language in one hour a day					
2) 5 – 10 years					
3) 3 – 5 years					
4) 1 – 2 years					
5) Less than a year					
16. I have a special ability for learning foreign languages.	1	2	3	4	5
17. The most important part of learning Mandarin Chinese is learning vocabulary words.	1	2	3	4	5
18. It is important to repeat and practice a lot.	1	2	3	4	5
19. Women are better than men at learning foreign languages.	1	2	3	4	5
20. People in my country feel that it is important to speak Mandarin Chinese.	1	2	3	4	5
21. I feel timid speaking Chinese with other people.	1	2	3	4	5
22. If beginner students are permitted to make errors in Chinese, it will be difficult for them to speak correctly later on.	1	2	3	4	5
23. The most important part of learning Mandarin Chinese is learning the grammar.	1	2	3	4	5
24. I would like to learn Mandarin Chinese so that I can get to know Chinese people better.	1	2	3	4	5
25. It is easier to speak than write Mandarin Chinese.	1	2	3	4	5
26. It is important to practice with cassettes or tapes.	1	2	3	4	5
27. Learning Mandarin Chinese is different than learning other European Languages.	1	2	3	4	5

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 28. The most important part of learning Chinese is learning how to translate from my native language. | 1 | 2 | 3 | 4 | 5 |
| 29. If I learn Chinese very well, I will have better opportunities for a good job.                    | 1 | 2 | 3 | 4 | 5 |
| 30. People who speak more than one language are very intelligent.                                     | 1 | 2 | 3 | 4 | 5 |
| 31. I want to learn to speak Mandarin Chinese well.   | 1 | 2 | 3 | 4 | 5 |
| 32. I would like to have Chinese friends.   | 1 | 2 | 3 | 4 | 5 |
| 33. Everyone can learn to speak Mandarin Chinese.   | 1 | 2 | 3 | 4 | 5 |
| 34. It is easier to read and write Chinese than to speak and understand it.                           | 1 | 2 | 3 | 4 | 5 |

**C: How do I learn Mandarin Chinese?**

Please read the following statements, and tick the response (1, 2, 3, 4, or 5) to indicate how often you actually do when you are learning Mandarin Chinese.

- 1. Never or almost never do this    2. Generally not do this**  
**3. Somewhat do this    4. Generally do this                    5. Always do this**

- |  |   |   |   |   |   |
|--|---|---|---|---|---|
| 1. I think of relationships between what I already know and new things I learn in Mandarin Chinese.                      | 1 | 2 | 3 | 4 | 5 |
| 2. I use the new Mandarin Chinese words in a sentence so I can remember them.  | 1 | 2 | 3 | 4 | 5 |
| 3. I connect the sound of a new Chinese word and image or picture of the word to help me remember it.                    | 1 | 2 | 3 | 4 | 5 |
| 4. I remember a new Chinese word by making a mental picture of a situation in which the word might be used.              | 1 | 2 | 3 | 4 | 5 |
| 5. I use rhymes to remember new Chinese words.   | 1 | 2 | 3 | 4 | 5 |
| 6. I use flashcards to remember new Chinese words.   | 1 | 2 | 3 | 4 | 5 |
| 7. I physically act out new Chinese words.   | 1 | 2 | 3 | 4 | 5 |
| 8. I review Chinese lessons often.   | 1 | 2 | 3 | 4 | 5 |
| 9. I remember new Chinese words or phrases by remembering their location on the page, on the board, or on a street sign. | 1 | 2 | 3 | 4 | 5 |
| 10. I say or write new Chinese words several times.  | 1 | 2 | 3 | 4 | 5 |
| 11. I try to talk like native Mandarin Chinese speaker.  | 1 | 2 | 3 | 4 | 5 |
| 12. I practice the sounds of Mandarin Chinese.   | 1 | 2 | 3 | 4 | 5 |
| 13. I use the Chinese words I know in different ways.  | 1 | 2 | 3 | 4 | 5 |
| 14. I start conversations in Mandarin Chinese.   | 1 | 2 | 3 | 4 | 5 |

- |  |   |   |   |   |   |
|--|---|---|---|---|---|
| 15. I watch Chinese language TV shows spoken in Mandarin Chinese or go to movies spoken in Mandarin Chinese. | 1 | 2 | 3 | 4 | 5 |
| 16. I read for pleasure in Mandarin Chinese.   | 1 | 2 | 3 | 4 | 5 |
| 17. I write notes, messages, letters, or reports in Mandarin Chinese.  | 1 | 2 | 3 | 4 | 5 |
| 18. I first skim a Chinese passage then go back and read carefully.  | 1 | 2 | 3 | 4 | 5 |
| 19. I look for words in my own language that are similar to new words in Chinese.                            | 1 | 2 | 3 | 4 | 5 |
| 20. I try to find patterns in Mandarin Chinese.  | 1 | 2 | 3 | 4 | 5 |
| 21. I find the meaning of a Mandarin Chinese word by dividing it into parts that I understand.               | 1 | 2 | 3 | 4 | 5 |
| 22. I try not to translate word-for-word.  | 1 | 2 | 3 | 4 | 5 |
| 23. I make summaries of information that I hear or read in Chinese.  | 1 | 2 | 3 | 4 | 5 |
| 24. To understand unfamiliar Chinese words, I make guesses.  | 1 | 2 | 3 | 4 | 5 |
| 25. When I cannot think of a word during a conversation in Chinese, I use gestures.                          | 1 | 2 | 3 | 4 | 5 |
| 26. I make up new words if I do not know the right ones in Chinese.  | 1 | 2 | 3 | 4 | 5 |
| 27. I read Chinese without looking up every new word.  | 1 | 2 | 3 | 4 | 5 |
| 28. I try to guess what the other person will say next in Chinese.   | 1 | 2 | 3 | 4 | 5 |
| 29. If I cannot think of a Chinese word, I use a word or phrase that means the same thing.                   | 1 | 2 | 3 | 4 | 5 |

- |  |   |   |   |   |   |
|--|---|---|---|---|---|
| 30. I try to find as many ways as I can to use my Mandarin Chinese.                | 1 | 2 | 3 | 4 | 5 |
| 31. I notice my Chinese mistakes and use that information to help me do better.    | 1 | 2 | 3 | 4 | 5 |
| 32. I pay attention when someone is speaking Chinese.                              | 1 | 2 | 3 | 4 | 5 |
| 33. I try to find out how to be a better learner of Chinese.                       | 1 | 2 | 3 | 4 | 5 |
| 34. I plan my schedule so I will have enough time to study Chinese.                | 1 | 2 | 3 | 4 | 5 |
| 35. I look for people I can talk to in Chinese.                                    | 1 | 2 | 3 | 4 | 5 |
| 36. I look for opportunities to read as much as possible in Chinese.               | 1 | 2 | 3 | 4 | 5 |
| 37. I have clear goals for improving my Chinese skills.                            | 1 | 2 | 3 | 4 | 5 |
| 38. I think about my progress in learning Chinese.                                 | 1 | 2 | 3 | 4 | 5 |
| 39. I try to relax whenever I feel afraid of using Chinese.                        | 1 | 2 | 3 | 4 | 5 |
| 40. I encourage myself to speak Chinese even when I am afraid of making a mistake. | 1 | 2 | 3 | 4 | 5 |
| 41. I give myself a reward or treat when I do well in Chinese.                     | 1 | 2 | 3 | 4 | 5 |
| 42. I notice if I am tense or nervous when I am studying or using Chinese.         | 1 | 2 | 3 | 4 | 5 |
| 43. I write down my feelings in a language learning diary.                         | 1 | 2 | 3 | 4 | 5 |
| 44. I talk to someone else about how I feel when I am learning Chinese.            | 1 | 2 | 3 | 4 | 5 |

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 45. If I do not understand something in Chinese, I ask the other person to slow down or say it again. | 1 | 2 | 3 | 4 | 5 |
| 46. I ask Chinese speaker to correct me when I talk.  | 1 | 2 | 3 | 4 | 5 |
| 47. I practice Chinese with other students.   | 1 | 2 | 3 | 4 | 5 |
| 48. I ask for help from Chinese speakers.   | 1 | 2 | 3 | 4 | 5 |
| 49. I ask questions in Chinese.   | 1 | 2 | 3 | 4 | 5 |
| 50. I try to learn about the culture of Chinese speakers.   | 1 | 2 | 3 | 4 | 5 |

Thank you very much for your cooperation ☺



## **Interview Schedule**

**Name of interviewee** \_\_\_\_\_

**Venue** \_\_\_\_\_

**Course** \_\_\_\_\_

**Date of interview** \_\_\_\_\_

### **Directions:**

I would like to talk to you about your Chinese Language learning strategies. I will need to take some notes and tape our conversation as an aid for the study. Your name and your opinions will be kept in complete confidentiality and will not affect anyone's opinion about you.

### **Interview questions:**

1. Highlight your background, including your family and learning experience?
2. Your Chinese learning experiences? Why, when, where did you start learning this language?
3. How did you learn Chinese?
4. What strategies have you tried and what strategies are useful for you personally in learning Chinese?
5. Which kinds of strategies do you think are all useful for learners at different levels of Chinese?
6. How do you think your choice of learning strategies to do with your Chinese LLB, motivations, and your learning achievement?

## Appendix C: Tables

**Table 1. Factor Analysis – SILL for the Heritage Chinese Students Group**

<b>Questionnaire Items</b>	<b>F1</b>	<b>F2</b>	<b>F3</b>	<b>F4</b>	<b>F5</b>	<b>F6</b>
QC6, I use flashcards to remember new Chinese words.	<b>.786</b>					
QC7, I physically act out new Chinese words.	<b>.752</b>					
QC5, I use rhymes to remember new Chinese words.	<b>.734</b>					
QC9, I remember new Chinese words or phrases by remembering their location.	<b>.713</b>					
QC8, I review Chinese words often.	<b>.696</b>					
QC4, I remember a new word by making a mental picture of a situation in which the word might be used.	<b>.642</b>					
QC11, I try to talk like native Mandarin speakers.		<b>.747</b>				
QC12, I practice the sounds of Mandarin Chinese.		<b>.708</b>				
QC14, I start conversation in Mandarin Chinese.		<b>.624</b>				
QC13, I use the Chinese words I know in different ways.		<b>.594</b>				
QC2, I use the new Mandarin words in a sentence so I can remember them.		<b>.561</b>				
QC3, I connect the sound of a new word and image or picture of the word to help me remember it.		<b>.502</b>				
QC1, I think of relationships between what I know and new things I learn in Mandarin.		<b>.376</b>				
QC21, I find the meaning of a Mandarin word by dividing it into parts that I understand.			<b>.692</b>			
QC18, I first skim a Chinese passage then go back and read carefully.			<b>.668</b>			
QC17, I write notes, messages, letters, or reports in Mandarin Chinese.			<b>.637</b>			
QC19, I look for words in my own language that are similar to new words in Chinese.			<b>.620</b>			
QC20, I try to find patterns in Mandarin Chinese.			<b>.599</b>			
QC22, I try not to translate word for word.			<b>.570</b>			
QC10, I say or write new Chinese words several times.			<b>.561</b>			
QC16, I read for pleasure in Mandarin Chinese.			<b>.502</b>			
QC23, I make summaries of information that I hear or read in Chinese.			<b>.497</b>			
QC15, I watch Chinese language TV or movies spoken in Mandarin.			<b>.376</b>			
QC35, I look for people I can talk to in Chinese.				<b>.665</b>		

QC33, I try to find out how to be a better learner of Chinese.	<b>.660</b>
QC31, I notice my Chinese mistakes and use that information to help me do better.	<b>.654</b>
QC36, I look for opportunities to read as much as possible in Chinese.	<b>.635</b>
QC34, I plan my schedule so I will have enough time to study Chinese.	<b>.511</b>
QC30, I try to find as many as I can to use my Mandarin Chinese.	<b>.474</b>
QC38, I think about my progress in learning Chinese.	<b>.432</b>
QC32, I pay attention when someone is speaking Chinese.	<b>.409</b>
QC37, I have clear goals for improving my Chinese skills.	<b>.389</b>
<hr/>	
QC41, I give myself a reward or treat when I do well in Chinese.	<b>.620</b>
QC26, I make up new words if I do not know the right ones in Chinese.	<b>.601</b>
QC42, I notice if I am tense or nervous when I am studying or using Chinese.	<b>.538</b>
QC43, I write down my feelings in a language learning diary.	<b>.535</b>
QC28, I try to guess what the other person will say next in Chinese.	<b>.475</b>
QC39, I try to relax whenever I feel afraid of using Chinese.	<b>.473</b>
<hr/>	
QC48, I ask for help from Chinese speakers.	<b>.619</b>
QC47, I practice Chinese with other students.	<b>.595</b>
QC49, I ask questions in Chinese.	<b>.591</b>
QC45, If I do not understand something in Chinese, I ask the other person to slow down or say it again.	<b>.583</b>
QC46, I ask Chinese speaker to correct me when I talk.	<b>.556</b>
QC50, I try to learn about the culture of Chinese speakers.	<b>.495</b>
QC44, I talk to someone else about how I feel when I am learning Chinese.	<b>.475</b>
QC40, I encourage myself to speak Chinese when I am afraid of making mistake.	<b>.338</b>
<hr/>	
% of variance explained	<b>8.02 6.93 6.77 6.55 6.25 6.21</b>
Internal consistency (alpha)	<b>.84 .78 .76 .74 .70 .70</b>

Extraction Method: Principal Component Analysis.  
Rotation Method: Varimax with Kaiser Normalization.  
Rotation converged in 7 iterations.

**Table 2. Factor Analysis – SILL for the Non-Heritage Chinese Students Group**

<b>Questionnaire Items</b>	<b>F1</b>	<b>F2</b>	<b>F3</b>	<b>F4</b>	<b>F5</b>	<b>F6</b>
QC25, When I cannot think of a word during a conversation in Chinese, I use gestures.	<b>.754</b>					
QC27, I read Chinese without looking up every new word.	<b>.724</b>					
QC24, To understand unfamiliar Chinese words, I make guesses.	<b>.722</b>					
QC26, I make up new words if I do not know the right ones in Chinese.	<b>.708</b>					
QC29, If I cannot think of a Chinese word, I use a word or phrase that means the same thing.	<b>.687</b>					
QC44, I talk to someone else about how I feel when I am learning Chinese.	<b>.510</b>					
QC39, I try to relax whenever I feel afraid of using Chinese.	<b>.623</b>					
QC41, I give myself a reward or treat when I do well in Chinese.	<b>.558</b>					
QC40, I encourage myself to speak Chinese when I am afraid of making mistake.	<b>.541</b>					
QC43, I write down my feelings in a language learning diary.	<b>.449</b>					
QC47, I practice Chinese with other students.		<b>.714</b>				
QC48, I ask for help from Chinese speakers.		<b>.707</b>				
QC46, I ask Chinese speaker to correct me when I talk.		<b>.698</b>				
QC50, I try to learn about the culture of Chinese speakers.		<b>.665</b>				
QC49, I ask questions in Chinese.		<b>.590</b>				
QC45, If I do not understand something in Chinese, I ask the other person to slow down or say it again.		<b>.580</b>				
QC12, I practice the sounds of Mandarin Chinese.			<b>.697</b>			
QC23, I make summaries of information that I hear or read in Chinese.			<b>.652</b>			
QC20, I try to find patterns in Mandarin Chinese.			<b>.618</b>			
QC11, I try to talk like native Mandarin speakers.			<b>.595</b>			
QC13, I use the Chinese words I know in different ways.			<b>.591</b>			
QC10, I say or write new Chinese words several times.			<b>.498</b>			
QC21, I find the meaning of a Mandarin word by dividing it into parts that I understand.			<b>.454</b>			
QC18, I first skim a Chinese passage then go back and read carefully.			<b>.430</b>			
QC14, I start conversation in Mandarin Chinese.			<b>.414</b>			

QC19, I look for words in my own language that are similar to new words in Chinese.	<b>.399</b>					
QC22, I try not to translate word for word.	<b>.360</b>					
QC16, I read for pleasure in Mandarin Chinese.	<b>.640</b>					
QC17, I write notes, messages, letters, or reports in Mandarin Chinese.	<b>.619</b>					
QC15, I watch Chinese language TV or movies spoken in Mandarin.	<b>.602</b>					
QC33, I try to find out how to be a better learner of Chinese.	<b>.571</b>					
QC32, I pay attention when someone is speaking Chinese.	<b>.545</b>					
QC34, I plan my schedule so I will have enough time to study Chinese.	<b>.512</b>					
QC31, I notice my Chinese mistakes and use that information to help me do better.	<b>.440</b>					
QC38, I think about my progress in learning Chinese.	<b>.629</b>					
QC37, I have clear goals for improving my Chinese skills.	<b>.510</b>					
QC36, I look for opportunities to read as much as possible in Chinese.	<b>.487</b>					
QC30, I try to find as many as I can to use my Mandarin Chinese.	<b>.410</b>					
QC35, I look for people I can talk to in Chinese.	<b>.362</b>					
QC3, I connect the sound of a new word and image or picture of the word to help me remember it.	<b>.558</b>					
QC7, I physically act out new Chinese words.	<b>.539</b>					
QC5, I use rhymes to remember new Chinese words.	<b>.494</b>					
QC8, I review Chinese words often.	<b>.466</b>					
QC9, I remember new Chinese words or phrases by remembering their location.	<b>.449</b>					
QC4, I remember a new word by making a mental picture of a situation in which the word might be used.	<b>.430</b>					
QC1, I think of relationships between what I know and new things I learn in Mandarin.	<b>.401</b>					
QC6, I use flashcards to remember new Chinese words.	<b>.387</b>					
QC2, I use the new Mandarin words in a sentence so I can remember them.	<b>.382</b>					
% of variance explained	<b>9.74</b>	<b>6.95</b>	<b>6.69</b>	<b>5.76</b>	<b>5.38</b>	<b>4.97</b>
Internal consistency (alpha)	<b>.87</b>	<b>.78</b>	<b>.71</b>	<b>.65</b>	<b>.62</b>	<b>.59</b>

Extraction Method: Principal Component Analysis.  
Rotation Method: Varimax with Kaiser Normalization.

Rotation converged in 7 iterations.

**Table 3. Factor Analysis – BALLI for Heritage Chinese Students Group**

<b>Questionnaire Items</b>	<b>F1</b>	<b>F2</b>	<b>F3</b>	<b>F4</b>
QB32, I'd like to have Chinese friends	<b>.702</b>			
QB29, If I learn Chinese very well, I'll have better opportunities for a good job.	<b>.667</b>			
QB31, I want to learn to speak Mandarin well.	<b>.644</b>			
QB24, I'd like to learn Mandarin so that I can get to know Chinese people better.	<b>.580</b>			
QB30, People who speak more than one language are very intelligent.	<b>.509</b>			
QB20, People in my country feel that it's important to speak Mandarin.	<b>.384</b>			
QB14, It's ok to guess if you don't know a word in Chinese.	<b>.364</b>			
QB33, Everyone can learn to speak Mandarin Chinese.	<b>.342</b>			
QB10, It's easier for someone who already speaks a FL to learn another one.	<b>.306</b>			
QB34, It's easier to read and write Chinese than to speak and understand it.		<b>.628</b>		
QB19, Women are better than men at learning FL.		<b>.591</b>		
QB9, You shouldn't say anything in Mandarin until you can say it correctly.		<b>.501</b>		
QB6, People from my country are good at learning FL.		<b>.450</b>		
QB2, Some people have a special ability for learning FL.		<b>.322</b>		
QB15, If someone spent one hour a day learning Chinese, how long would it take to learn it well.		<b>.319</b>		
QB11, People who are good at math or science are not good at learning FL.			<b>.504</b>	
QB23, The most important part of learning Mandarin is learning the grammar.			<b>.492</b>	
QB4, Mandarin Chinese is:			<b>.437</b>	
QB26, It's important to practice with cassettes or tapes.			<b>.430</b>	
QB7, It is important to speak Mandarin with excellent pronunciation.				<b>.494</b>
QB27, Learning Mandarin is different than learning other European Languages.				<b>.492</b>
QB28, The most important part of learning Chinese is learning how to translate from my native language.				<b>.478</b>
QB13, I enjoy practicing Chinese with Chinese people I meet.				<b>.445</b>
QB5, I believe I'll learn to speak Mandarin very well.				<b>.430</b>
QB16, I have a special ability for learning FL.				<b>.389</b>
% of variance explained	<b>8.74</b>	<b>6.20</b>	<b>5.77</b>	<b>5.38</b>
Internal consistency (alpha)	<b>.68</b>	<b>.36</b>	<b>.35</b>	<b>.40</b>

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Rotation converged in 7 iterations.



**Table 4. Factor Analysis – BALLI for Non-Heritage Chinese Students Group**

<b>Questionnaire Items</b>	<b>F1</b>	<b>F2</b>	<b>F3</b>	<b>F4</b>
QB32, I'd like to have Chinese friends.	<b>.687</b>			
QB24, I'd like to learn Mandarin so that I can get to know Chinese people better.	<b>.619</b>			
QB18, It's important to repeat and practice a lot.	<b>.569</b>			
QB12, It's best to learn Mandarin in a Mandarin speaking environment.	<b>.528</b>			
QB7, It is important to speak Mandarin with excellent pronunciation.	<b>.521</b>			
QB8, It's necessary to know about Chinese culture to learn to speak Mandarin well.	<b>.474</b>			
QB26, It's important to practice with cassettes or tapes.	<b>.435</b>			
QB13, I enjoy practicing Chinese with Chinese people I meet.	<b>.425</b>			
QB5, I believe I'll learn to speak Mandarin very well.	<b>.412</b>			
QB28, The most important part of learning Chinese is learning how to translate form my native language.		<b>.600</b>		
QB20, People in my country feel that it's important to speak Mandarin.		<b>.535</b>		
QB17, The most important part of learning Mandarin is learning Vocabulary.		<b>.487</b>		
QB6, People from my country are good at learning FL.		<b>.448</b>		
QB30, People who speak more than one language are very intelligent.		<b>.388</b>		
QB15, If someone spent one hour a day learning Chinese, how long would it take to learn it well.		<b>.377</b>		
QB23, The most important part of learning Mandarin is learning the grammar.		<b>.375</b>		
QB22, If beginners are permitted to make errors, it'll be difficult for them to speak correctly later.		<b>.358</b>		
QB3, Some languages are easier to learn than others.			<b>.650</b>	
QB4, Mandarin Chinese is...			<b>.550</b>	
QB27, Learning Mandarin is different than learning other European Languages.			<b>.511</b>	
QB29, If I learn Chinese very well, I'll have better opportunities for a good job.			<b>.507</b>	
QB34, It's easier to read and write Chinese than to speak and understand it.				<b>.728</b>
QB19, Women are better than men at learning FL.				<b>.433</b>
QB21, I feel timid speaking Chinese with other people.				<b>.432</b>
% of variance explained	<b>9.35</b>	<b>6.79</b>	<b>6.29</b>	<b>6.01</b>
Internal consistency (alpha)	<b>.69</b>	<b>.54</b>	<b>.54</b>	<b>.42</b>

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Rotation converged in 7 iterations.

## **Appendix D Interview Transcript of Mary (Heritage student, female)**

I1, I2, I3...=Interviewer's utterance turns

S1, S2, S3...=Sun's utterance turns

[...]=Overlapping      ...=Pauses

**I1: Ok, can you briefly introduce yourself and why you chose to study Chinese?**

**M1:** I'm Chinese-British, BBC<sup>44</sup>, my parents and everyone all from China. I have a friend, he convinced me. My friend was born in Hong Kong, he came over here maybe at 4 years old and grown up here, and he convinced me to go with him. He influenced me to study Mandarin.

**I2: Have you learnt other languages?**

**M2:** I already learnt French and German. Language is scientific. I know it's very beneficial and very useful to know different languages, and Chinese particular, I like to discover new things. I think Chinese, particularly mandarin got to be very [very] important.

My friend was the first person influences me, but later I became interested in myself and enjoyed it. Cantonese is my first language; I found many similarities between Cantonese and Mandarin. Most China use simplified, Hong Kong traditional, it's definitely useful when travelling, and I watch a lot Chinese films with English subtitles. I quite enjoy.

**I3: How do these motivations influence your study?**

**M3:** I don't think I really thought about why I want to study it. It's just something different; if I have time I definitely go for it. I can see the benefits definitely.

**I4: Is it ok to guess when you don't know the words?**

**M4:** Yes, I'd use Cantonese to guess, but it's not good to do so.

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<sup>44</sup> BBC: British Born Chinese.

**I5: Do you think it is ok to speak even if you don't know a word?**

**M5:** Yes, I do that sometimes when I tried to speak to Mandarin to Chinese people, when I don't know a word, because the similarities between Cantonese and Mandarin, so I tried to use a similar word in Cantonese, although it wasn't good idea, it confuses more. If you don't know a word, try to use a similar word.

**I6: If someone spends an hour a day, how much time you think one would need to learn Chinese well?**

**M6:** If someone spend an hour a day, two years is possible to learn Chinese well, depending on the person, how good skills he has, how good his memories.

**I7: Do you agree: "It's important to repeat and practice a lot"?**

**M7:** Disagree, I say or write new words several times, as I don't have time. If I have time, I'd do it. I physically act out new words.

**I8: How do you do that?**

**M8:** For a new word, I'd try, just get meaning across, visualize, use your eyes well, and communicate visually. But that alone won't be so good, a combination would work. If your pronunciation isn't perfect, your gestures, hands would help to get message across.

**I9: So you physically act out new words?**

**M9:** Physically act out new words, in a way, yes, to get message across, it's not easier, visualize, it's combination, not its alone. If your pronunciation is not good, gestures, hands may get my feeling message across.

**I10: Generally speaking, how do you study Chinese?**

**M10:** I try to find patterns; this is to do with writing more than with anything else, such as characters, with regard to grammar, for a higher lever learner, yes. Grammar probably is last thing one learn, learn vocabulary, as long as you get message across, that's fine.

**I11: How do you think your view of learning language including Chinese affect the way you study the language?**

**M11:** Learning a language is different from how I normally learn, for example, my other subjects. You have to use memory, and be able to link, to associate, definitely your voice, and all the different tones, it helps me with my current study, learning language possibly improve my verbal communication skill, even in English, make me more aware of the pronunciation of the different words, just make sure it's nice and clear. Write like a story in Chinese helps put things together. Even with grammar, it's very similar to Cantonese.

**I12: How do you think of learning Characters?**

**M12:** Because I already know Cantonese, that's not that difficult. Even with the grammar, it's very similar to Cantonese, so I know which order is needed.

**I13: Do you think there are universal methods effective for everybody?**

**M13:** Practice every day, at least one hour, with any language. I haven't spoken any French, I used to be very good at French, but now I'm struggled. You need to transfer short term memory to and use it again and again, and it stays longer and becomes long-term memory,

**I14: Do you think your preference of methods is to do with your language learning belief?**

**M14:** No, I don't think so. What I believe is one thing, what I do is another thing, this is what I'd like to do, but in life you have to prioritize. This is not in an ideal world. It's perfect scenario.

## **Appendix E Interview Transcript of Heather (Non-heritage Student, Female)**

I1, I2, I3...=Interviewer's utterance turns

H1, H2, H3...=Helen's utterance turns

[...]=Overlapping      ...=Pauses      (?)=incomprehensible

### **I1: Now let's start with some background of your Chinese learning. Why you study Chinese?**

**H1:** China has become a very important force in the world, and I think it's almost my duty... almost my obligation to try to understand what is happening. I just feel very interested in world affairs... I'm retired now, and I have time to choose. I do feel it's a right thing to do... And I want to go to China; I want to be able to communicate...

### **I2: Why you want to go to China?**

**H2:** I go to China simply for travel, I want to see as much of China as I can over a period of years, so I have done a year's language, I'll go for a little while, and then I have another trial of Mandarin and then I have to go back to China, for as long as I can do... I want something stimulating... I've been very ill, and am now recovering. I do things, I walk, I swim, I exercise, I do interesting things, and I want something for my brain. I thought Mandarin was the best thing for that, the thought is very stimulating indeed. I spent 15 hours for it every day. I got up 5:30, very early. I like to get up very early, years of being psychotherapist. I like the dawns, and I live near river, I like to get up very early.

### **I3: Do you speak other languages?**

**H3:** I have learnt other languages, I have learnt British sign language, and I'm still learning it. I learnt French, Latin, Spanish, and Greek at school.

### **I4: How do you learn these languages?**

**H4:** Learning these languages is very different. When I started to work, I started to work at different area. I learnt Spanish and work in Spain, and I learnt that while being in the country, and just with Spanish book to help me. So that was different.

The strategy for leaning this is different. I have more time now, I have choices if I can make, it's more comfortable, I decide, I'm the boss, and that's better, I like that. I would like to be with more Chinese people.

**I5: How do you learn Chinese?**

**H5:** I write a lot. The first thing I discovered in the first term was I couldn't learn anything unless I could pronounce the characters, so had to have a way of knowing and feeling a bit confident and being able to say it in my head. Now I feel a bit confident in pronunciation. I have spent a lot of time writing, character after character, repeating the characters, to learn the characters, to learn how to write them, and to know what they mean as well. Not very well, doesn't go in all the time. I can write them, but what they mean I cannot remember.

**I6: How long does it take to remember one character, to remember how to write?**

**H6:** I probably do 10 a day. I would try and learn 10 every day. I have flashcards, I have rings a paper with just characters down, and then I would just learn how to write them. For writing, I try to follow the rules. I have the rules, if I got stuck, I go back to the workbooks which got characters in. When I can write, it gives me lots confidence to write, feels good. It's worth to spend this time in writing. Chinese character is so beautiful. One has to have slightly patient sight (?), and wait until it drops into place. You just try.

**I7: Some language is easier than others, what language do you think is easier to learn.**

**H7:** Sometime you cannot get it to right, you become frustrated. Because I have background of European language, I think any Western European language is much easier than Russian, or Mandarin, because it's my background. I'm familiar. I want to learn Hebrew. I like languages that have characters and beautiful. I think Chinese is median difficult. Grammar is straightforward, if you stuck, I try to stop, but I realize the grammar is so different, I have to put myself in Chinese mind.

**I8: If one studies one hour a day, how long will it take for him/her to grasp the language?**

**H8:** One hour a day isn't enough, I think two maybe. But it doesn't get consolidated, 1 hour a day, you do a little bit, but you need that extra bit I think of time to do more.

**I9: Do you agree: "I believe I'll ultimately learn to speak Chinese very well"?**

**H9:** Neither agree nor disagree, it depends on how we think it is 'very well'.

**I10: Do you agree: "it's important to speak Chinese with excellent pronunciation"?**

**H10:** I don't think so.

**I11: What do you think is more important?**

**H11:** To speak is most important. To speak and not to worry about it, to be comfortable, to be at ease, have a go. It doesn't matter to me to make mistake. I'm mature. I made mistakes. You don't die from mistakes. And I think Chinese people will tolerate, they do not correct me, to strongly will make me feel bad if I make mistake.

**I12: Do you agree: "it's easier for someone who already speaks a foreign language to learn another one"?**

**H12:** Agree. Because they have some confidence in tackling the language, they have some experience. It's about confidence.

**I13: Do you agree: "the most important part in learning mandarin is learning vocabulary"?**

**H13:** Don't agree. The most important thing for me in learning Mandarin, [for me], is pronunciation and writing, those are the two things for me, because then I can practice, without either of those, I cannot practice anything.

**I14: How to you practice pronunciation?**

**H14:** I listen to the teacher, CD, I go back to the rules if I don't know it, I practice curling /purling (?) my tongue in a mirror.

**I15: What other methods you use?**

**H15:** I learn new words word by word, repeating, [repeating], getting pronunciation right and then getting the character right. It's quite helpful to think of situation in which a word might be. People remember characters better if they have image of something, not image of word, but visualization of contents.

**I16: How do you think motivation and learning?**

**H16:** The more motivated, I'm going to China, the more I want to learn. The more stimulate, the more I want to learn, and the better I will learn.

**I17: Do you agree: “How do I think about Mandarin affect how well I learn Mandarin”?**

**H17:** Yes, I agree. I think the relationship is very profoundly, the characters in particular, and the sounds. It's joyful to be able to, beautiful. How I think about learning Mandarin affect how well I learn Mandarin in a very positive way, but like everything, it's imperfect, I would better like to be better and better.