Criteria for Teaching/Learning Resource Selection:
Facilitating Teachers of Chinese to Work with English-Speaking Learners

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DECLARATION

I declare that except where due acknowledgement has been made, this research proposal is my own work and has not been submitted in any form for another degree at any university or other institute of tertiary education. Information derived from the published or unpublished work of others has been acknowledged in the text and a list of references is given.

施捷 SHI Jie

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13th, December, 2014
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## Contents

DECLARATION ................................................................................................................ ii

ACKNOWLEDGEMENTS:............................................................................................. iii

LIST OF TABLES........................................................................................................... viii

LIST OF FIGURES........................................................................................................... ix

LIST OF ABBREVIATIONS............................................................................................ x

ABSTRACT ....................................................................................................................... xi

Chapter 1 Introduction ...................................................................................................... 1
   1.1 Introduction............................................................................................................................... .1
   1.1.1 International and Australian contexts ............................................................................1
   1.1.2 Teachers of Chinese.......................................................................................................3
   1.1.3 Personal experience .......................................................................................................4
   1.2 Research questions.....................................................................................................................9
   1.3 Definition of key terms ............................................................................................................10
   1.3.1 Defining learnability ....................................................................................................10
   1.3.2 Definition of effectiveness in teaching ........................................................................11
   1.4 Significance of this study .........................................................................................................12
   1.5 Thesis statement.......................................................................................................................14
   1.6 Outline of the thesis .................................................................................................................15

Chapter 2 Selecting resources for Teaching/learning Chinese: Literature Review... 17
   2.1 Introduction..............................................................................................................................17
   2.2 Other aspects of teaching/learning resources...........................................................................17
      2.2.1 Resources and resources for language teaching...........................................................18
      2.2.1.1 Learning styles and teaching/learning resources....................................................18
      2.2.2 English teaching/learning resources.............................................................................20
      2.2.2.1 Resources and L2 teaching/learning approaches ......................................................20
      2.2.2.2 Teaching/learning resource development .................................................................22
      2.2.2.3 Summary................................................................................................................24
      2.2.3 Chinese language teaching/learning resources.............................................................24
   2.3 Teaching/learning resource selection.......................................................................................26
      2.3.1 Principles for teaching/learning resource selection in general......................................27
      2.3.2 Resource selection for language teaching/learning....................................................28
      2.3.3 Resource selection for teaching Chinese as a second language...................................30
   2.4 Gaps and debates in the research literature ..............................................................................30
   2.5 Conclusion ............................................................................................................................... 32

Chapter 3 Methodology and Methods ............................................................................ 33
   3.1 Introduction..............................................................................................................................33
   3.2 Qualitative grounded theory as research strategy .................................................................33
      3.2.1 Qualitative research .....................................................................................................33
      3.2.2 Grounded theory .........................................................................................................36
   3.3 Methodological principles guiding this study .........................................................................38
      3.3.1 Validity and reliability .................................................................................................38
3.3.2 Triangulation .................................................................................................................. 39
3.3.3 Ethical considerations ...................................................................................................... 40
3.3.4 Generalisability ............................................................................................................... 41
3.4 Research design .................................................................................................................... 43
3.4.1 Participants ...................................................................................................................... 43
3.4.1.1 Teachers ................................................................................................................... 43
3.4.1.2 Students .................................................................................................................... 45
3.4.2 Site selection .................................................................................................................... 46
3.5 Data collection ..................................................................................................................... 48
3.5.1 Interviews ....................................................................................................................... 49
3.5.2 Documents ..................................................................................................................... 52
3.5.3 Observation ................................................................................................................... 53
3.6 Data analysis ....................................................................................................................... 55
3.6.1 Grounded theory analysis ............................................................................................. 55
3.6.2 Data analysis overview ................................................................................................. 58
3.6.2.1 Data analysis of 11 other teachers .............................................................................. 58
3.6.2.2 Data analysis of the researcher ................................................................................ 61
3.6.2.3 Data analysis of the students ................................................................................... 63
3.7 Conclusion ........................................................................................................................... 64

Chapter 4 Teachers' Teaching/learning Resource Selection ........................................ 65
4.1 Introduction ......................................................................................................................... 65
4.2 Attitudes towards teaching/learning resource selection ..................................................... 66
4.2.1 Attitudes in general ....................................................................................................... 66
4.2.2 Preferences for teaching/learning resources ................................................................. 67
4.2.3 Difficulties when performing resource selection ............................................................ 71
4.3 Criteria for teaching/learning resource selection from teachers’ perspectives .......... 77
4.3.1 Curriculum-appropriate ............................................................................................... 78
4.3.2 Make students interested ............................................................................................. 79
4.3.3 Student appropriateness ............................................................................................... 84
4.3.4 Be flexible ..................................................................................................................... 88
4.4 Conclusion ........................................................................................................................... 90

Chapter 5 Researcher’s Teaching/learning Resource Selection ..................................... 91
5.1 Introduction ......................................................................................................................... 91
5.2 Seven sample lessons divided into two sets ...................................................................... 91
5.3 Four sample lessons for Years K-3, chronologically: ...................................................... 93
5.3.1 Teaching processes and analysis of the first sample lesson ......................................... 94
5.3.2 Teaching processes and analysis of the second sample lesson .................................... 95
5.3.3 Teaching processes and analysis of the third sample lesson ....................................... 100
5.3.4 Teaching processes and the analysis of the fourth sample lesson ............................... 103
5.3.5 Summary of resource selection criteria for Years K-3 ................................................ 104
5.4 Three sample lessons for Years 4-7, chronologically: ..................................................... 104
5.4.1 Teaching processes and analysis of the first sample lesson ......................................... 104
5.4.2 Teaching processes and analysis of the second sample lesson .................................... 106
5.4.3 Teaching processes and analysis of the third sample lesson ........................................ 108
5.4.4 Summary of resource selection criteria for Years 4-7 ................................................... 113
5.5 Conclusion ........................................................................................................................ 113

Chapter 6 Resource Selection from Students’ Perspectives.............................................. 115
6.1 Introduction .................................................................................................................... 115
6.2 Stage K/1 ........................................................................................................................ 116
   6.2.1 Favoured resources and the reasons ................................................................. 116
   6.2.2 Effectiveness of teaching/learning resources ....................................................... 118
   6.2.3 Comparisons between preferences and effectiveness ........................................... 119
6.3 Stage 2 ............................................................................................................................ 121
   6.3.1 Favoured resources and the reasons ................................................................. 122
   6.3.2 Effectiveness of teaching/learning resources ....................................................... 124
   6.3.3 Comparisons between preferences and effectiveness ........................................... 125
6.4 Stage 3 ............................................................................................................................ 127
   6.4.1 Favoured resources and the reasons ................................................................. 127
   6.4.2 Effectiveness of teaching/learning resources ....................................................... 129
   6.4.3 Comparisons between preferences and effectiveness ........................................... 131
6.5 Year 7 ............................................................................................................................ 133
   6.5.1 Favoured resources and the reasons ................................................................. 133
   6.5.2 Effectiveness of teaching/learning resources ....................................................... 135
   6.5.3 Comparisons between preferences and effectiveness ........................................... 136
6.6 Comparing different groups concerning preferences for resources ....................... 138
6.7 Conclusion .................................................................................................................... 142

Chapter 7 Discussion and Conclusion of this Study......................................................... 144
7.1 Introduction .................................................................................................................... 144
7.2 Discussion of the findings ............................................................................................ 145
   7.2.1 Difficulties teachers have while selecting resources ........................................... 146
   7.2.2 Teachers’ and students’ attitudes and the reasons ................................................. 147
      7.2.2.1 Teachers’ attitudes ...................................................................................... 147
      7.2.2.2 Students’ attitudes ..................................................................................... 149
      7.2.2.3 Similarities and discrepancies between students’ and teachers’ opinions ....... 150
   7.2.3 Criteria of selecting teaching/learning resources for effective teaching ........... 152
      7.2.3.1 Curriculum-appropriate ............................................................................. 153
      7.2.3.2 Students-attractive .................................................................................... 153
      7.2.3.3 A balance between students-attractiveness and other factors when facing conflicts .......... 154
      7.2.3.4 Students-appropriate .............................................................................. 154
      7.2.3.5 Be flexible ................................................................................................ 155
7.3 Implications of the study ............................................................................................ 155
   7.3.1 Implications for realising Asia literacy ............................................................... 156
   7.3.2 Implications for Chinese teacher’s education ..................................................... 156
   7.3.3 Implications for solving difficulties in teaching/learning resource selection .. 157
   7.3.4 Implications for developing criteria of effective resource selection ............... 158
7.4 Limitations .............................................................................................................................159  
7.5 Recommendations for future research ...................................................................................160  
References ....................................................................................................................... 162  
Appendices ...................................................................................................................... 172  
  Appendix 1: University of Western Sydney Ethics Approval .................................................172  
  Appendix 2: State Education Research Approval Process (SERAP) Approval ......................174  
  Appendix 3: Letter of Invitation to the Principal of Participant Schools ...............................175  
  Appendix 4: Participant Information Sheet (Classroom teachers) ........................................177  
  Appendix 5: Participant Information Sheet (Volunteer teacher-researchers) ........................179  
  Appendix 6: Participant Information Sheet (Parent/Caregiver) .............................................181  
  Appendix 7: Participant Consent Form (Classroom teachers) .............................................183  
  Appendix 8: Participant Consent Form (Volunteer teacher-researchers) ..............................185  
  Appendix 9: Participant Consent Form (Parent/Caregiver) ..................................................187  
  Appendix 10: Sample interview questions for ROSETE teacher-researchers .....................189  
  Appendix 11: Sample interview questions for experienced Chinese teachers ....................190  
  Appendix 12: Sample interview questions with local teachers ..........................................191  
  Appendix 13: Sample interview questions with students ..................................................192  
  Appendix 14: Students’ feedback sheets .............................................................................193  
  Appendix 15: Research timeline .........................................................................................195
LIST OF TABLES

Table 2.1 Nine learning strategies and examples....................................................................................18
Table 2.2 Seven Learning strategies (“Overview of learning styles”, 2014)................................................19
Table 3.1 Features of qualitative research and this research.................................................................34
Table 3.2 Principles of grounded theory and their application in this study...........................................37
Table 3.3 Field note table for observation................................................................................................55
Table 3.4 Grounded theory analysis of the data from 11 teachers........................................................59
Table 3.5 Grounded theory analysis of the researcher’s sample lessons..............................................61
Table 3.6 Grounded theory analysis of the data from students.............................................................63
Table 4.1 Profiles of participants............................................................................................................65
Table 5.1 Four sample lessons for Years K-3, chronologically:..............................................................92
Table 5.2 Three sample lessons for Years 4-7, chronologically:...........................................................93
Table 6.1 Preferences for resources from stage K/1 students’ perspectives............................................116
Table 6.2 Reasons for preferences from stage K/1 students’ perspectives.............................................117
Table 6.3 Effect of each resource from stage K/1 students’ perspectives..............................................118
Table 6.4 Preferences for resources from stage 2 students’ perspectives.............................................122
Table 6.5 Reasons for preferences from stage 2 students’ perspectives..............................................123
Table 6.6 Effect of each resource from stage 2 students’ perspectives..............................................124
Table 6.7 Preferences for resources from stage 3 students’ perspectives.............................................128
Table 6.8 Reasons for preferences from stage 3 students’ perspectives..............................................129
Table 6.9 Effect of each resource from stage 3 students’ perspectives..............................................130
Table 6.10 Preferences for resources from Year 7 students’ perspectives............................................133
Table 6.11 Reasons for preferences from Year 7 students’ perspectives..............................................134
Table 6.12 Effect of each resource from Year 7 students’ perspectives..............................................135
Table 6.13 Preferences for teaching/learning resources (different grades)............................................139
Table 6.14 Ranked preferences for teaching/learning resources (different grades)..............................141
LIST OF FIGURES

Figure 2.1 A map of key concepts arising from this literature review .....................................................31
Figure 3.1 Data collection .......................................................................................................................49
Figure 3.2 The continuum model for interviews ....................................................................................50
Figure 3.3 Representation of grounded theory analysis ........................................................................57
Figure 5.1 Game: where are the numbers? ............................................................................................96
Figure 5.2 Math games in Chinese .........................................................................................................96
Figure 5.3 Paper clock for teaching time ...............................................................................................102
Figure 5.4 Introduction to China- teaching/learning resources ............................................................109
Figure 6.1 Comparisons between preferences and effects (stage K/1 students) ..................................120
Figure 6.2 Comparisons between preferences and effects (stage 2 students) .......................................126
Figure 6.3 Comparisons between preferences and effects (stage 3 students) .......................................131
Figure 6.4 Comparisons between preferences and effects (Year 7 students) .......................................137
LIST OF ABBREVIATIONS

DEC: Department of Education and Communities
EFL: English as a Foreign Language
ELL: English Language Learners
ELT: English Language Teaching
ESL: English as a Second Language
L2: Second Language
NEAF: National Ethics Application Form
NSW: New South Wales
ROSETE: Research Orientated, School Engaged, Teacher Education
SERAP: State Education Research Approval Process
UWS: University of Western Sydney
ABSTRACT

Teaching/learning resource selection is an important aspect of teaching and learning activities, which can largely decide what and how teachers teach and what students learn. However, little previous research exists on how to select teaching/learning resources, let alone selecting resources to make Chinese learnable. This research is directed at the development of criteria for teaching/learning resource selection.

A main research question addressed by this research is: What are the theories and criteria for teachers of Chinese to select resources to make Chinese learnable for English learners? The contributory research questions are: What are teachers’ attitudes and preferences regarding resource selection and their reasons for these? What are the difficulties or problems teachers in selecting resources and what solutions do they generate? What are students’ attitudes towards the selected resources? What are the criteria for effective teaching/learning resource selection?

A grounded theory approach with conceptually-driven data analysis is adopted as the methodology intending to generate theories for effective teaching/learning resource selection. Interviews, observation and document-gathering were employed in data collection to collect evidence from 12 teachers and 48 students.

Five criteria were developed from data analysis. Specifically, teaching/learning resource selection should be (a) curriculum-appropriate; (2) make students interested; (3) balance students’ interests and other factors when facing conflicts; (4) students-appropriate; (5) and flexible.

Key words: criteria development, teaching/learning resources, selection
Chapter 1 Introduction

1.1 Introduction

Focusing on teachers’ teaching/learning resource selection in Australian primary and high schools, this study aims at developing criteria regarding how teachers of Chinese select resources to make Chinese learnable. Research questions are developed from three levels of contexts: (1) international and Australian contexts; (2) teacher-of-Chinese context and (3) personal experience context. The situations stated below provide valuable background information for this research and lead the researcher to believe in the potential contribution of this study.

1.1.1 International and Australian contexts

Globalisation and integration have significantly expanded in recent years. Asia’s rapid development has aroused the attention of Australia regarding its Asia-literacy policy:

Global integration and international mobility have increased rapidly in the past decade. As a consequence, new and exciting opportunities for Australians are emerging… India, China and other Asian nations are growing and their influence on the world is increasing. Australians need to become “Asia literate”, engaging and building strong relationships with Asia. (Ministerial Council on Education, Employment, Training and Youth Affairs, 2008, p. 4)

Australia’s advocacy of and devotion to Asia literacy appeared as the country’s engagement with Asia in trade, investment, immigration, tourism, education and labour has grown faster than with the rest of the world. Also identified is that Asia literacy affords young Australians a competitive edge in the world, enhancing the country’s progress (The University of Melbourne – Asia Education Foundation, 2011). The acquisition of Asian languages, which is basic to these other aspects, is critical to developing an Asia-literate Australia.
China, as a major Asian country of 1.4 billion people and a booming economy, enjoys an increasing international influence. Thus, learning the Chinese language becomes important, which “encourages a sense of awareness that it is important and that it is necessary to learn this language” (Singh & Han, in press, p. 4). Orton (2008) presents the importance of learning Chinese by indicating that Australia is in a new situation as at 2008. He states that “there is one country which is:

1. a regional neighbour
2. its largest trading partner
3. a rising world economic power
4. a major source of immigrant workforce
5. a major source of international students
6. a major source of tourists to Australia
7. a major destination for Australian tourists
8. the source of its biggest immigrant settlers
9. a country with a long and prestigious culture
10. home to 1 in 5 human beings on the Earth. (Orton, 2008, p. 5)

Since language is a basic tool of every activity related to a country and its people, developing the relationship with China in economic and other aspects to achieve mutual benefits to a large extent requires a substantial pool of Australians in different fields who understand China thoroughly and can speak Chinese well.

As is indicated by the Australian Government Department of Education as well as Employment and Workplace Relations under the School Languages Program (2010), Chinese teaching and learning began in Australia 20 years ago. It was introduced by a government-initiated drive to cultivate “Asia literate” graduates in Australia to serve Australia’s economic interests. The 1990s was a time when numerous projects sprung up to promote Chinese teaching and learning. Considerable improvements took place. Although the Asia literacy drive wavered in early 2000s, it was re-kindled by the Rudd government in 2007.

With the continuous support of Australian government and deepening cooperation
between Australia and China in various strategic aspects, learning Chinese has been put on the agenda of more Australian citizens.

Sadly, “95 percent of those who start Chinese give up the moment they can” (Orton, 2013, para. 4). As confirmed by Singh (2014), “making Asian languages learnable for monolingual English-speaking students in Australian schools remains an obstinate educational problem” (p. 14). Some particular challenges for English-speaking learners, notably tones, characters, and grammatical patterns in Chinese cause the difficulties in sustained learning. Considerable labour and time are required just to continue learning, let alone learning it well. A major contributing factor is that the challenges for English-speaking learners are not fully realised or understood by teachers of Chinese, and thus are not well handled, sometimes even hardly dealt with at all (Orton, 2013). In this light, teacher training, both pre-service and in-service, aiming to reduce the known challenges for English-speaking learners of Chinese is necessary (Orton, 2013) in order to reduce the dropout rate.

1.1.2 Teachers of Chinese

Training for teachers of Chinese is necessary to ensure that those who work to make Chinese learnable for English-speaking learners are capable of facilitating the realisation of Asia literacy. Evidence shows that “high quality professional development for teachers can be designed to improve students’ learning” (Singh, 2013, p. 1), and in turn help to achieve Asia literacy. The University of Melbourne – Asia Education Foundation (2011) also fortifies that “pre-service teacher education has a critical role in ensuring that new teachers in all learning areas and levels of schooling are equipped to take part in the delivery of Asia literacy” (p. 3). Continuous professional education that exposes teachers to new knowledge concerning Asia and its relationship with Australia is also needed to allow teachers to follow the Australian curriculum (The University of Melbourne – Asia Education Foundation, 2011). Moreover, the availability of qualified teachers is a premise
when authorities start a Chinese program (Orton, 2008). From the foregoing, we can infer that competent Chinese teachers are indispensable for the achievement of Asia literacy.

Teaching and learning Chinese in Australia is still in the exploration. There is much room for study and improvement especially of Chinese teachers’ competence, of which the selection of teaching/learning resources is an essential item. The University of Melbourne – Asia Education Foundation (2011) indicates that providing high quality resources can increase teacher’s capacity to support an Asia literate curriculum. Moreover, “teaching resources – targeted resource development of scaffolded practice material, using electronic media” (Orton, 2008, p. 7) is recommended as a way to make Chinese learnable. As “the heart of educational setting” (Rashidi & Safari, 2010, p. 252), and also as carrying and presenting forms of knowledge, resources to a large extent decide what the teacher delivers and what the students take in. Different resources are suitable for different teaching purposes and different students can learn better with different resources. Given this, what the teachers choose as teaching/learning resources makes an important difference in students’ acquisition of Chinese, and in achieving Australia’s Asia literacy. A study on the effective selection of Chinese teaching/learning resources is necessary.

1.1.3 Personal experience

The researcher’s personal experience also reveals the importance of resource selection in Chinese teaching. Through her personal experiences in learning and teaching, and as a teacher-researcher, the importance and value of conducting a study on teaching/learning resource selection is presented, which then gives rise to the conception of this research.

Learning experience

My learning experience provides me with notions of how appropriate and inappropriate teaching/learning resource selection can influence teaching/learning outcomes. It allows me to view the impact of resource selection from a student’s perspective, and in turn,
stimulates my interest in conducting research on the topic of resource selection.

When I was in primary school and high school, the teaching/learning resources for my Chinese lessons were text books and corresponding workbooks designated by the Department of Education for compulsory citywide use. Our teachers did not have the freedom to choose their own resources. Teaching processes and content were rigidly set by the books. The school would have pan-school and city-wide tests based upon these resources. Teaching schedules and every other thing seemed fixed according to them. The lessons were dull, and like most other students, I struggled slowly and painfully, without joy or passion. Some of my classmates complained about the outdated and boring textbooks and workbooks. The final scores were not pleasant in the eyes of many students, including me, and the learning turned out to be a sort of failure. As indicated here, the main reason behind failed teaching and learning boils down to ineffective teaching/learning resource selection.

Any set of compulsory teaching resources represents a lack of freedom and flexibility in teaching. It can bring a variety of difficulties to students who do not go well with the designated resources in getting the most out of teaching and learning. I and some of my classmates are examples. In this way, selecting teaching/learning resources effectively proved to be a critical issue.

The selection of teaching/learning resources in Australia presents different situations. According to the Australian teaching system and Australian Curricula: Languages, Chinese (Australian Curriculum, Assessment and Reporting Authority, 2013), various teaching/learning resources are supposed to be selected. Compared with traditional ways of Chinese teaching and learning, where a large amount of vocabulary and characters are supposed to be memorised through drills, the Australian way embodies more freedom and flexibility. How to select resources to make Chinese learnable for Australian students became a conspicuous issue that caught my attention.
My learning experience at university in China was similar to that in Australia. The Chinese lessons there were different from those at primary school or high school. There were no designated resources to restrict the lessons. My teacher selected various resources for different students and teaching goals. He had complete freedom in teaching and using the appropriate resources, which gave rise to my curiosity. With interesting activities and assignments, my interest in Chinese returned. For the first time in my life, I regarded learning Chinese enjoyable and rewarding, despite some manageable difficulties. The texts on the book even seemed beautiful. Thanks to suitable resources, I realised higher test scores. Reading became one of my hobbies and remains so today.

Appropriately selected resources made Chinese learnable for me and gave me a chance to fall in love with the process of learning it. This stands as a personal demonstration of the importance of teaching/learning resource selection. From my experience in primary school, high school, university and my exposure to different situations in Australia concerning resource selection, the idea of performing some research on teaching/learning resource selection was conceived.

**Teaching experience in China**

In terms of my teaching experience, after graduating from university, I became an English teacher in Yinjiang High School, China. This experience allowed me to approach this research topic from the perspective of a teacher, and discover the necessity and importance of effective teaching/learning resource selection.

During my teaching, Yinjiang High School used standard resources for English lessons. The school and the city carried out standard tests from time to time and the resources had been unchanged since 2003. The text books and workbooks remained the same, with topics that were unfamiliar to students, such as The Beatles and the Tangshan earthquake of 1976. Although students and even teachers complained about the dull and unfamiliar content of the resources, the teachers had no opportunity to select their own resources.
Learning English gradually became a painful task for students and in turn for teachers.

The restriction of teaching/learning resource selection subsequently impeded teaching/learning outcomes. What I regarded as important and useful could not be taught, leaving only what was out-dated. The students could not acquire English language well, let alone gain enjoyment in learning it. Inappropriate resource selection caused unproductive teaching and learning, which aroused my attention.

**Experience as a ROSETE teacher-researcher**

After four years of teaching English, I was selected to be a volunteer teacher-researcher with the ROSETE (Research- Oriented School- Engaged Teacher Education) program.

The ROSETE Program is a cooperative effort initiated in 2008 by the Western Sydney Region of the New South Wales Department of Education and Communities (NSW DEC), the People’s Republic of China Ningbo Municipal Education Bureau, and the University of Western Sydney (Singh & Ballantyne, 2014). Annually from 2008 to 2017, the Ningbo Municipal Education Bureau selects up to 10 eligible graduates or experienced teachers to participate in this partnership (Singh, Harreveld, Gao & Dannaher, 2014).

Like other ROSETE volunteers, I teach Chinese language and culture at Western Sydney schools for 18 months and simultaneously, complete a Master degree of Education (Honours) by completing a research paper on education at the University of Western Sydney. Thus, we are also designated as “teacher-researcher”, which indicates our double identities as teachers of Chinese and as education researchers.

When I first came to Australia to teach Chinese, being a beginner in this field, as a matter of course, I came across the task of selecting teaching/learning resources. The freedom and flexibility of resource selection in Australia surprised me. Too many choices and no choices at all were two extremes, neither of which I found preferable. Confusion in resource selection quickly arose. Considering that I had never been given so much
freedom in selecting resources, I turned to Australian teachers and former volunteer teacher-researchers for help. They made me believe that the selection of teaching/learning resources is a most important aspect of teaching and learning, because it decides what and how the teachers deliver, and what and how the students take in. Despite the challenge of performing it, I wanted to study it more closely.

Following their suggestions, I observed Chinese lessons at Australian schools. I noticed that teachers used different teaching/learning resources to serve different teaching purposes, and the same resources could be used in different ways according to different situations. Some problems of resource selection were detected in class: students did not know what to do because the resources were too difficult; students could not follow the resources because they were unfamiliar with the content; students felt bored and became disengaged because the resources were not interesting enough to keep their attention. There was much to be discovered concerning teaching/learning resource selection. The interrelationship between resource selection and teaching/learning outcomes is critical and complicated.

A vague idea of a study on teaching/learning resource selection thus began to form. After observing lessons, I turned to previous literature on related areas intending to find useful tips concerning effective resource selection for beginning Chinese teachers like me. Disappointedly, I found them distinctly lacking in the area of teaching Chinese as a second language, although a few general tips and frameworks for resource selection could be found. In this way, gaps in the literature of teaching/learning resource selection were detected concerning teaching Chinese as a second language.

Since (1) resources are important in teaching/learning; (2) there are many difficulties in resource selection; and (3) gaps are detected in relevant literature, the research on Chinese teaching/learning resource selection is necessary. Consequently, I became intrigued and motivated to research the selection of teaching/learning resources to make Chinese
learnable for English-speaking learners.

1.2 Research questions

After observing different lessons, especially Chinese lessons in Australia, the researcher discovered that unlike the situations in China where mandatory teaching/learning resources are provided, Australian teachers select resources by themselves. Being a beginning Chinese teacher in Australia with little previous experience of selecting resources, she intended to investigate how to do it. She discovered gaps in the literature regarding resource selection for Chinese teaching, and planned to research it. After discussions with supervisors, she narrowed down the topic to focus on developing criteria for resource selection to make Chinese learnable for English-speaking learners. The term “materials” was adopted first to refer to all the materials teachers use to teach. Then considering “materials” may be confused with “textbooks”, since most people relate “teaching/learning materials” with textbooks (Tomlinson, 2011), it was replaced with the word “resources” for greater clarity. The word “resources” in this thesis refers to anything that is “used by teachers or learners to facilitate the learning” (Tomlinson, 2011, p. 2) including “videos, DVDs, emails, YouTube, dictionaries, grammar books, readers, workbooks or photocopied exercises” (Tomlinson, 2011, p. 2) as well as “newspapers, food packages, photographs” (Tomlinson, 2011, p. 2).

The main research question of this research is: What are the criteria for teachers of Chinese to select teaching/learning resources to make Chinese learnable for English-speaking learners?

Four contributory research questions are:

1. What are teachers’ attitudes and preferences regarding teaching/learning resource selection and their reasons for these?
2. What are the difficulties or problems teachers have while selecting resources and what solutions do they generate?

3. What are students’ attitudes towards the selected resources?

4. What are the criteria for effective resource selection?

### 1.3 Definition of key terms

This section provides definitions of two key terms, namely, “learnability” and “effectiveness”. By defining them, the researcher makes these terms clearer and helps potential readers to have a better understanding of this research.

#### 1.3.1 Defining learnability

Considering that “95 percent of those who start Chinese give up the moment they can” (Orton, 2013, para. 4), making Chinese “learnable” to keep students learning is the main purpose of this research. To achieve “learnability”, teaching/learning resource selection, a basis for effective Chinese teaching, was investigated, and criteria for resource selection were developed. Every action taken in this research is related to “learnability”. Therefore, what is regarded as “learnability” in this research?

According to Singh and Han (2014) “making Chinese learnable” refers to “three interrelated educational aims”, namely:

1) using learners’ recurring everyday sociolinguistic activities undertaken in English to teach the same activities in Chinese, capitalizing of cross-sociolinguistic similarities;

2) creating successful and rewarding language learning experiences for learners through using resourceful and innovative teaching/learning strategies that maximize time on practicing Chinese in their everyday lives; and

3) creating supportive learning environments involving school principals, teachers and parents, to build the desire of learners to
continue learning Chinese, about modern twenty first century China, and making person-to-person relations with Chinese people. (Singh & Han, 2014, pp. 404-405)

In other words, “learnability” refers to a learning state where students keep learning Chinese without encountering too many major difficulties. Even if they encounter difficulties, they can solve them with or without the help of the teachers. In this state, learners are well motivated; make progress continuously; and do not give up until they achieve a functional or vocational level of Chinese language.

The achievement of “learnability” is facilitated by teachers as an external factor and the students as an internal factor. These two aspects are interrelated, and affect each other throughout the processes of teaching and learning. Teaching/learning resource selection is an external strategy which functions through engaging the internal factor by stimulating students’ willingness to continue learning.

1.3.2 Definition of effectiveness in teaching

This study is intended for developing criteria in Chinese language resource selection. As a matter of course, criteria should be developed for “effective” Chinese teaching and learning. What then, can be regarded as effective? In Chinese teaching/learning activities, there are different teaching goals, which are foundation of resource selection and other teaching/learning activities. Scarino and Liddicoat (2009) state that in language teaching, selecting resources is a critical procedure of matching resources with its teaching and learning purposes based on the theories of language learning as well as culture. Thus whether the resources help to achieve teaching goals is an index of whether these resources are effective or not. Some resources are selected to make lessons more attractive and prevent students from being bored; while other resources are selected to revise or practice particular parts of vocabulary or grammar. Therefore, if the particular teaching/learning goals are achieved by particular resources, then the selection of these resources can be regarded as effective. Thus, the effectiveness of resource selection for
Chinese teaching/learning refers to a situation where students can mostly achieve the teaching/learning goals with the teachers’ help using the selected resources..

In this study, the effectiveness of resource selection is basically investigated from two interrelated aspects, namely teachers’ perspectives and students’ perspectives. Teachers and students as two parties in teaching/learning activities who have the most say regarding the effectiveness of resource selection. The L2 teachers participating in this research provide their opinions on selected teaching/learning resources in terms of various considerations including aspect relating to their effectiveness. Here effectiveness means the accomplishment of teaching goals set for each lesson. The 48 students participating in this research also provide their opinions on the effectiveness of the selected resources. For the students effectiveness mainly refers to the sense that they have been successful in learning something new. In this study, the effectiveness of the resource selection is seen from these two perspectives as they relate to the achievement of teaching/learning goals.

1.4 Significance of this study

The significance of this study lies in the five aspects stated below. First, the significance of this research lies in filling literature gaps of resource selection in teaching Chinese to English-speaking learners. According to section 2.4 of Chapter 2, there has been little research done on teaching Chinese as a second language, particularly on resource selection. After reviewing previous literature, gaps were detected in these areas. This research fills in these gaps to some extent, to provide data and resources for upcoming studies on related areas and contribute to further studies on teaching Chinese as a second language for English-speaking learners.

Second, this research facilitates developing concepts and criteria for teaching/learning resource selection in general. It sheds light on developing theories for resource selection for language teachers to teach their native language as a target. It also helps to make Chinese learnable by developing criteria regarding effective resource selection for Chinese
lessons. Through the analysis of the data collected from teachers and students concerning resource selection, the phenomena were inspected and analysed, and the criteria were generated. The theories of how to select teaching/learning resources were ultimately developed.

Third, it responds to the Australian Government’s Asia Literacy Policy by contributing to the aim of making Chinese learnable for Australian students. As indicated by Australia in the Asian Century – White Paper (2012, p. iii), “it calls on all of us” including the researcher to “play our part in becoming a more Asia-literate and Asia-capable nation” (p. iii). The Australian government advocates the learning of Chinese to achieve Asian literacy to serve its economic interests and to develop a competitive edge for young Australians (Ministerial Council on Education, Employment, Training and Youth Affairs, 2008; Orton, 2008). To facilitate the achievement of this goal, the Chinese language as an essential element should first be learned. English-speaking learners are frequently challenged in learning Chinese (Orton, 2008), which may be solved by effective resource selection. In this way, this research can respond well to the Asia Literacy Policy.

Fourth, it contributes to the improvement of Chinese teachers’ competence. Orton (2008) indicates that without a high dropout rate, there will be enough Australians who can use Chinese in different fields. She also emphasises that “second language students of Chinese (L2) drop out due to three factors” (Orton, 2008, p. 5), of which one is teachers’ “lack of success in developing proficiency” (Orton, 2008, p. 5). Consequently, qualified teachers are one of the most important factors for successful Chinese teaching/learning for non-Chinese background students. Among those techniques of qualified Chinese language teachers, resource selection is basic and important because it determines what teachers deliver and what students learn. This research looks into the situations of teaching/learning resource selection; contributes to detecting the problems that may occur in resource selection; and in turn tries to uncover the causes of these problems and the methods of carrying out effective resource selection.
Finally, it can contribute to ROSETE teacher-researchers’ teaching/learning resource selection while teaching Chinese. The ROSETE program is an international cooperation initiative of Chinese education and education research between Australia and China (Singh & Ballantyne, 2014). ROSETE volunteers teach Chinese language and culture at Western Sydney schools as well as conduct research on education to accomplish a Master degree (Singh & Han, in press). This research aims at facilitating resource selection particularly for ROSETE volunteer teacher-researchers who have almost the same situations and context in which this research is conducted. The generalisation of this research is spontaneous for them.

1.5 Thesis statement

This research aims at developing criteria for effective teaching/learning resource selection from three perspectives: the teachers’ perspective, the researcher’s perspective and the students’ perspective. Teachers generally regarded resource selection critical and selected effective resources to aid teaching and learning. Four criteria were considered important by them when selecting teaching/learning resources, namely, curriculum appropriateness, students-attractiveness, students-appropriateness and flexibility. Seven sample lessons for Kindergarten to Year 7 students were analysed. Using this data set five criteria to inform the selection of teaching/learning resources for Chinese language education were developed, namely curriculum-fit, student appeal, striking a balance between student appeal and other factors when facing conflicts, being student appropriate and flexibility. The students provide the argument with another perspective, which involves their preferences and effectiveness of the selected resources. Five criteria were developed from the analysis of their data, which indicate that teaching/learning resources should be selected according to the curriculum, the students’ different situations and their interests. However, when the students’ interests are at variance with other important factors such as the curriculum or teaching effects, a balance should be managed among these various elements. Grounded theory approach with conceptually-driven data analysis is applied in
this study to analyse the evidence from interviews, observations and documents, and generate theories. Due to the limited time and the size of participants, the investigation has not been done thoroughly. There are still aspects to be covered and explored further in future studies.

1.6 Outline of the thesis

This thesis is comprised of seven chapters, namely, the introduction chapter, literature review chapter, methodology chapter, three evidentiary chapters and the conclusion chapter sequentially.

Chapter 1 introduces the background of this research on three levels, which are international level, national level and personal level. The main research question and contributory research questions of this study are then put forward. Definitions of key terms are provided. The significance and overall structure of this thesis are also presented.

In Chapter 2, a review of relevant literature which focuses on teaching/learning resource, resource selection in language teaching, and Chinese language teaching resources is conducted. The relevant definitions, theories and limitations are explored, and gaps are detected in the area of effective resource selection for teaching Chinese as a second language.

Chapter 3 demonstrates the methodology and methods of this study, including the application of qualitative grounded theory approach, research design, data collection and data analysis. Interviews, observations and document collection are used for data collection. Methodological principles including triangulation, validity and reliability, generalisibility and ethical issues are introduced as well.

Chapter 4 is the first evidentiary chapter. It shows 11 other teachers’ perspectives on teaching/learning resource selection. Interviews are adopted as a main data source and are
triangulated by documents and observations. Three aspects concerning resource selection are analysed: teachers’ attitudes toward teaching/learning resource selection, difficulties encountered while selecting resources, and criteria for resource selection.

Chapter 5, the second evidentiary chapter, focuses on the researcher’s own Chinese teaching. The researcher’s experience as a volunteer teacher-researcher at three Australian schools is analysed. The data sources are mainly observation notes and self-reflection journals. Seven sample lessons are chosen for analysis to generate theories for effective teaching/learning resource selection. These seven lessons include four lessons for Kindergarten to Year 3 students and three lessons for Year 4 to Year 7 students.

Chapter 6 focuses on the data collected from the researcher’s students. Those data are mainly in the form of interviews and documents, such as feedback, lesson plans and teaching/learning resources. Forty-eight students are recruited and divided into four equal groups according to their ages. Comparisons between different student groups and between the students’ and teachers’ opinions are carried out to discern the similarities and discrepancies, which contribute to triangulating and developing theories for resource selection.

The seventh chapter is the conclusion chapter to show the key findings of this study. All the research questions are answered and five criteria for effective teaching/learning resource selection are demonstrated, which are curriculum-appropriateness, student attractiveness, balance student attractiveness and other factors, student appropriateness, and flexibility. The contributions, implications and limitations of this research are discussed. Recommendations are made for future research in this and other related areas.
Chapter 2 Selecting resources for Teaching/learning Chinese: Literature Review

2.1 Introduction

This chapter reviews literature relevant to resource selection and criteria for resource selection. In this review, the researcher “carefully selects other research which provides a context for the upcoming findings” (Emerson, Fretz & Shaw, 1995, p. 201) and “discusses those ideas which highlight her own analysis” (p. 201). The reviewed literature includes introducing teaching/learning resources, principles for resource selection in general, resource selection for language teaching, resource selection for Chinese teaching, learning styles and resource selection, and gaps detected in literature. This review is used to have a comprehensive understanding of the research topic, make connections to the findings of this study and detect gaps in the literature for further theory development.

2.2 Other aspects of teaching/learning resources

2.2.1 Resources and resources for language teaching

Literature on general teaching/learning resources provides information for resources in general. For instance, the research carried out decades ago by Allwright (1981) focuses on various aspects of resources to facilitate productive teaching and learning. It proposes “a management analysis which establishes a necessarily limited role for teaching materials” (Allwright, 1981, p. 5).

As for literature on resources for general language teaching, Tomlinson (2012) provides an overview of the “literature on the relatively new field of materials development for language learning and teaching” (p. 143). The development of materials for language teaching/learning includes considerations of material evaluation, adaptation and principles for materials development that supposedly can be applied to teaching/learning any second
language (Tomlinson, 2012). Tomlinson (2011) argues that in “the development of L2 materials” (p. 1) it is necessary to see “what we could do in order to improve the quality of materials which are used for the teaching and learning of second languages” (p. 1). This research “identifies gaps in the literature and makes proposals for future progress in materials development and in the research within the field” (p. 143). This study provides macro view and supposedly universal concepts for improving the quality of teaching/learning resources and would seem to have implications for selecting resources effectively to make Chinese learnable through vertical comparisons and deduction.

Among all these research on resources for language teaching and learning, resources for English teaching/learning are the most common as shown in section 2.2.2.

2.2.1.1 Learning styles and teaching/learning resources

Different students have different learning styles or strategies, and to gain best teaching effects, different resources should be chosen in line with these learning styles. Tomlinson (2011) presents a series of student learning strategies that “need to be catered for” (p. 18) in language learning resources which include

Table 2.1 Nine learning strategies and examples

<table>
<thead>
<tr>
<th>Learning Strategies</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Visual</td>
<td>learners prefer to see the language written down</td>
</tr>
<tr>
<td>2. Auditory</td>
<td>learners prefer to hear the language</td>
</tr>
<tr>
<td>3. Kinesthetic</td>
<td>learners prefer to do something physical, such as following instructions for a game</td>
</tr>
<tr>
<td>4. Studial</td>
<td>learners like to pay conscious attention to the linguistic features of the language and want to be correct</td>
</tr>
<tr>
<td>5. Experiential</td>
<td>learners like to use the language and are more concerned with communication than with correctness</td>
</tr>
<tr>
<td>6. Analytic</td>
<td>learners prefer to focus on discrete bits of the language and to learn them one by one</td>
</tr>
<tr>
<td>7. Global</td>
<td>learners are happy to respond to whole chunks of language at a time and to pick up from them whatever language they can</td>
</tr>
</tbody>
</table>
8. Dependent learners prefer to learn from a teacher and from a book.

9. Independent learners are happy to learn from their own experience of the language and to use autonomous learning strategies.

However, there is much debate over what constitutes learning strategies. For instance, Lepi (2012) offers another classification which divides students’ learning strategies into seven different types. This disagreement is important for developing a nuanced argument about the relationship between students’ learning strategies and the selection of teaching/learning resources.

Table 2.2 Seven Learning strategies (“Overview of learning styles”, 2014)

<table>
<thead>
<tr>
<th>Learning styles</th>
<th>examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Visual (spatial)</td>
<td>prefer to use pictures, images, and spatial understanding.</td>
</tr>
<tr>
<td>2. Aural (auditory-musical)</td>
<td>prefer to use sound and music.</td>
</tr>
<tr>
<td>3. Verbal (linguistic)</td>
<td>prefer to use words, both in speech and writing.</td>
</tr>
<tr>
<td>4. Physical (kinesthetic)</td>
<td>prefer to use your body, hands and sense of touch.</td>
</tr>
<tr>
<td>5. Logical (mathematical)</td>
<td>prefer to use logic, reasoning and systems.</td>
</tr>
<tr>
<td>6. Social (interpersonal)</td>
<td>prefer to learn in groups or with other people.</td>
</tr>
<tr>
<td>7. Solitary (intrapersonal)</td>
<td>prefer to work alone and use self-study</td>
</tr>
</tbody>
</table>

Not only do students who prefer visual learning strategies prefer resources such as pictures or videos, but in learning Hanzi much attention has to be given to developing their visual awareness of characters. Aural style learners prefer resources like music or audio-recording, which is relevant to learning Putonghua. Kinesthetic learners are in favour of activities such as getting away from their seats and doing body movements. Students with solitary learning styles prefer resources such as books or worksheets. Different students have different methods of learning, which require different teaching/learning resources accordingly.
There are learners adopting a variety of learning styles, which justifies the application of various resources to even one learner:

Some people may find that they have a dominant style of learning, with far less use of the other styles. Others may find that they use different styles in different circumstances. There is no right mix. Nor are your styles fixed. You can develop ability in less dominant styles, as well as further develop styles that you already use well. (“Overview of learning styles,” 2014)

Tomlinson (2011) and Lepi (2012) provide different learning styles to demonstrate that students have various learning styles (Oxford, 2002), which warrants a diversity of accompanying resource selection. Similarities are detected in their learning style classifications: they both regard “learning by seeing”, “learning by hearing”, “learning physically”, “learning independently” and “learning interactively” as independent learning styles, which presents and verifies the complexity of students’ situation and resource selection accordingly. Data are analysed from the perspective of learning styles regarding how to select resources to work with different students in this research.

2.2.2 English teaching/learning resources

2.2.2.1 Resources and L2 teaching/learning approaches

LaBelle (2011) carried out research analysing 33 English Language Learners (ELL) textbooks to “determine the range of L2 [second language] teaching models” (p. 94). With the help of content analysis, the researcher “measured the range of depiction of the four language-teaching models” (LaBelle, 2011, p. 94). These models are:

1. Behaviorist: A language-teaching approach that emphasizes drills and repetition, audio–lingual techniques, and/or eliciting responses stimulated by some external motivators.

2. Innatist: A language-teaching approach that focuses upon innate or natural abilities that help the student acquire the second language, e.g.,
the acquisition-learning, monitor, natural order, input, and affective filter hypotheses.

3. Cognitive/Attention-Processing: A language-teaching approach that centers upon how information is processed, e.g., whether it is controlled or automatic; focal or peripheral… as well as whether it is implicit or explicit linguistic knowledge.

4. Social Constructivist/Interactionist: A language-teaching approach that pays attention to the dynamic interaction between learners and teachers, modified interaction, comprehensible input, and the zone of proximal development. (LaBelle, 2011, p. 95)

The first and fourth models focus on external factors such as stimuli and environment. The second and third focus on the internal factors, such as nature and consciousness. These four models of approaches are used as frameworks for textbook analysis in LaBelle (2011)’s research. LaBelle’s (2011) research “concluded that four of the 33 textbooks had considerable to extensive frequency and variation of L2 teaching models” (p. 94) and are more effective in terms of teaching and learning. This research introduces teaching/learning resource analysis from the perspective of teaching/learning models and methods involving both external factors and internal factors, which provides comprehensive and insightful understandings of 33 English textbooks. However, this study does not deal with textbooks from other related aspects, such as government policies, appropriateness, students’ interests and their needs.

Atkinson (2002) elaborates on Social Constructivist/Interactionist approach by developing “the notion of a sociocognitive perspective on second language acquisition” (p. 525). This work develops “a view of language and its acquisition as social phenomena” (Atkinson, 2002, p. 525); presents “the cognitive nature of language and its acquisition” (p. 525); and “introduces sociocognitive views of language and posits a social interpretation of connectionism as bridging the gap between cognition and social action” (p. 525). Atkinson

2.2.2.2 Teaching/learning resource development

Banegas (2012) conducted an action research project to explore “the principles that teachers follow when developing their own materials for lessons” (p. 400) which “aimed at integrating content and language in English as a Foreign Language (EFL) lessons in state secondary education” (Banegas, 2012, p. 400). This action research project involved course-book evaluation, teachers’ material-development action, audio-recorded lessons using these materials, and group interviews with teachers and students (Banegas, 2012). This research claim to reveal that:

(a) there is insufficient analysis of students’ needs to understand what drives them to learn;
(b) there is a conflict between students’ motivation and interests;
(c) topic selection is a more important aspect of materials development than source selection;
(d) the discussion about context-responsive materials should be refined; and
(e) there is a need for activities which cater for language awareness.

(Banegas, 2012, p. 401)

With regards to teaching/learning resources for EFL, Rashidi and Safari (2010, p. 250) “offer a model for ELT materials development based on the major tenets of critical pedagogy.” Critical pedagogy in second language teaching refers to “a practice motivated by a distinct attitude toward classrooms and society” (Canagarajah, 2005, P. 932), which intends to explore the ways that social relationship and issues of power are settled in language (Rashidi & Safari, 2010). “The principles of the model were organized according to the main factors involved in materials development, i.e. program, teacher, learner, content, and pedagogical factors” (Rashidi & Safari, 2010, p. 250). As proposed by
Richards (2001), each factor embraces specific questions that need to be approached when developing the model:

1. Program factors: questions relating to concerns of the program
2. Teacher factor: questions relating to teacher concerns
3. Learner factor: questions relating to learner concerns
4. Content factor: questions relating to the content and organization of the material in the book
5. Pedagogical factor: questions relating to principles underlying the materials and the pedagogical design of the materials, including choice of activities and exercise types. (Richards, 2001, p. 259)

Their study is beneficial for “materials writers and language teachers in developing and critically evaluating ELT materials” (Rashidi & Safari, 2010, p. 250), because it provides a social and political perspective for ELT material design.

Through synthesising previous literature on materials design, Howard and Major (2005) “examine six factors that teachers need to take into account when considering designing their own materials” (p. 101). Those six factors are: “the learners; the curriculum and the context; the resources and facilities; personal confidence and competence; copyright compliance; time” (Howard & Major, 2005, pp. 103-104). Howard and Major (2005) then “present ten guidelines for designing effective English teaching materials” (p. 101) to further expand these six factors. The ten guidelines indicate that English language teaching materials should

1. be contextualized to the curriculum they are intended to address; to the experiences, realities and first languages of the learners; to the topics and themes that provide meaningful, purposeful uses for the target language;
2. stimulate interaction and be generative in terms of language;
3. encourage learners to develop learning skills and strategies;
4. allow for a focus on form as well as function;
5. offer opportunities for integrated language use;
6. be authentic in terms of the texts and in terms of the tasks;
7. link to each other to develop a progression of skills, understandings and language items;
8. be attractive;
9. have appropriate instructions;
10. be flexible. (Howard & Major, 2005, pp. 104-107)

These factors and guidelines can provide insight for the development of criteria in this research, since resource development and resource selection share the same aim as realizing the effectiveness of teaching and learning activities.

2.2.2.3 Summary

Studies on English teaching/learning resources provide various perspectives on approaching Chinese teaching/learning resource selection, including L2 teaching-method (Labelle, 2011), problems of resource development (Banegas, 2012), models for ELT materials development (Rashidi & Safari, 2010), and principles for designing effective language teaching/learning resources (Howard & Major, 2005).

Selecting, adapting and designing, as related or somehow coherent procedures in teaching, have in common that they all aim to have adequate functional resources to use in teaching and learning. Thus, the models, criteria and principles for resource adaptation or design can have commonalities with those for resource selection, considering their mutual aim. The models and principles in the above literature can to some extent provide constructive insight for data analysis in this research.

2.2.3 Chinese language teaching/learning resources

Liu (2005) “examines the discourses of cultural values and beliefs constructed in Chinese language textbooks currently used for primary school students nationwide in China” (p. 15). By employing “story grammar analysis in the framework of critical discourse analysis, the article critically investigates how the discourses are constructed and what ideological forces are manifested in the textbooks” (Liu, 2005, p. 15). Story grammar analysis involves “a top-down reading of the stories in question” (Liu, 2005, p. 27), which specifies essential elements in stories (Liu, 2005) for analysis. Critical discourse analysis
refers to a framework that “focuses on the role of discourse in the (re)production and challenge of dominance” (Liu, 2005, p. 18), which is defined as “the exercise of social power by elites, institutions or groups, that results in social inequality” (p. 18). It is revealed in the research that the cultural values and beliefs constructed in Chinese language textbooks “serve the interests of the government and its cultural elites, but not the interests of the child reader” (Liu, 2005, p. 18).

Liu (2005) research further on the cultural and ideological aspects of Chinese language teaching/learning resources. He examines Chinese language textbooks “within the framework of critical curriculum theory” (Liu, 2005, p. 233) and adopts “critical discourse analysis” (p. 233) to “investigate how discourses of cultural knowledge are constructed and what ideological forces are manifested in the textbooks” (p. 233). The analysis of this study is divided into three dimensions:

1. discourses (constructing areas of cultural knowledge);
2. perspectives (micro-semantic areas constituting discourses);
3. forms of realization (choices of words, grammatical elements and generic structures). (Liu, 2005, p. 235)

Similarly, the study indicates that “the discourses constructed in the textbooks are a closed system that serves the purpose of social control but not the interest of children” (Liu, 2005, p. 235).

A third research by Liu (2005) explored “the pro-science and technology discourse constructed in Chinese language textbooks” (p. 403). He again used critical discourse analysis to “investigate how the discourse is constructed and what ideological forces are manifested in the textbooks” (Liu, 2005, p. 304). It analyse the data with three “analytic techniques” (Liu, 2005, p. 304), namely, “lexical, grammatical and story grammar analysis.” (p. 306). This study again reveals that information constructed in discourses “serves the interest of the government and its cultural elites” (Liu, 2005, p. 304) instead of those of the students.
All three studies of Liu (2005) adopt critical discourse analysis as analytic framework and examine Chinese language textbooks from cultural and social perspectives to investigate constructed ideology in textbooks. Although seen from slightly different sub-perspectives, namely, social, cultural and technological, the conclusions of these three research projects indicate that the beliefs and ideology in textbooks’ discourses “serve the interest of the government and its cultural elites but not the interests of the child reader” (Liu, 2008, p. 304). Culture and ideology are related and integrated with language teaching and learning, therefore, analysing textbooks from cultural and ideological perspectives provides new dimensions and insight for teaching/learning resource analysis, which could be applied when dealing with resources for teaching Chinese as a second language.

Ta (2014) provides principles for Chinese language textbook development from three perspectives, namely, content, language and appropriateness. Ta (2014) emphasizes that the content should involve various topics and styles to facilitate students’ application of the language in real social situations. Concerning the second perspective, the author indicates that standard Chinese language with high literariness should be adopted in texts to ensure positive learning/teaching outcomes (Ta, 2014). When referring to the perspective of appropriateness, the author suggests that the level of difficulty and the way of being attractive should be appropriate for different students (Ta, 2014). This research provides three perspectives for Chinese-language resource development. Resource development shares the same purpose with resource selection as to make teaching/learning effective, thus the insights in this research could offer some suggestions for principles of resource selection.

2.3 Teaching/learning resource selection

Teaching/learning resources can be generally defined as “a diverse range of materials” (Howard & Major, 2005, p. 101) that teachers depend on to help students learn properly (Howard & Major, 2005). Resources for language teaching/learning can be “anything that
can be used to facilitate the learning of a language, including course-books, videos, graded readers, flash cards, games, websites and mobile phone interactions” (Tomlinson, 2012, p. 143) and they can be “informative…instructional…experiential…and exploratory” (Tomlinson, 2012, p. 143). Teaching/learning resources for Chinese teaching fall into the category of resources for language teaching, which falls into the category of resources in general.

The definition of resources clarifies what are regarded as teaching/learning resources that the researcher addresses in this research. The diversity of resources presents the importance of selecting effective resources and raises the concern of how to select appropriately.

2.3.1 Principles for teaching/learning resource selection in general

“Selection” in the term “teaching/learning resource selection” means:

choosing, from the available resources, those materials considered to be the best, most appropriate and/or most suitable for the particular learning activity, and rejecting what is inferior, inappropriate, unsuitable or unacceptable. (The State of South Australia, Department of Education and Children’s Services, 2004, p. 7)

In order to make proper resource selections, existing guidelines and criteria are researched. The State of South Australia, Department of Education and Children’s Services (2004) presents seven guidelines that “support educators in selecting teaching and learning materials for children and students which are appropriate to their developmental growth and relevant to the achievement of appropriate learning outcomes” (p. 3). They argue that it should be ensured that teaching and learning resources:

1. are closely related to the curriculum program and policy, and provide supports for the recreational needs of students;
2. support diverse curricula to help students obtain an awareness of pluralistic society and the significance of relations with others;
3. facilitate the understanding of important contributions made to Australian heritage by people of all backgrounds;
4. motivate students and teachers to inspect their thoughts and behaviors to understand their responsibilities and rights as citizens in society;
5. are suitable for the age of the students concerning their emotional, intellectual, social and cultural conditions;
6. offer opportunities for students to deal with information and to develop the capacities to make discerning choices to prepare for the coming practices as adults;
7. introduce a range of insights on all issues.

In accordance with the State of South Australia, Department of Education and Children’s Services (2004), Province of British Columbia (2014) provides three criteria for effective teaching/learning resources, namely, “curriculum fit, social considerations, and age or developmental appropriateness” ("learning resources," 2014). Both Departments take curriculum-appropriate as first criterion for eligible resource selection, which emphasises the official status of the curriculum. Students’ age, as well as their social, emotional, intellectual and other developmental conditions is also emphasised by both governments as the guidelines and criteria for resource selection, which are all considered in this research.

2.3.2 Resource selection for language teaching/learning

According to Scarino and Liddicoat (2009) resources in language teaching and learning have some intrinsic problems, as they are neither designed to meet the needs of particular students, nor can they provide locally relevant content. Consequently, teachers are bound to supplement, or even replace provided resources with materials which are more effective to teach and to follow teaching goals (Scarino & Liddicoat, 2009). Teachers in Australia
have sufficient freedom to select appropriate teaching/learning resources by themselves, which suggests that resource selection for Chinese teaching is inevitable.

The processes of selecting resources involve evaluation made according to teaching stance and goals (Scarino & Liddicoat, 2009). Critical questions such as “What knowledge concerning language and culture can this resource provide?” or “What sort of leaning will the resource enable?” (Scarino & Liddicoat, 2009, p. 59) are asked prior to selection. Thus, the practice of resource selection calls for considering answers to these questions (Scarino & Liddicoat, 2009). Scarino and Liddicoat (2009) indicate that answering questions with appropriate resource selections according to different teaching/learning purposes and the theories of language learning is what teachers should do. Scarino and Liddicoat (2009) combine teaching/learning purposes and teaching theories together, trying to conduct effective resource selection in various situations. This approach focuses more on teachers’ role to decide what to select beforehand, whereas Laborda (2011) provides another option focusing more on learners:

different target audiences [learners] may lead to the development and use of a variety of teaching materials emphasizing different instructional techniques and teaching approaches such as lexical, communicative, task based or problem solving”. (Laborda, 2011, p. 103)

In this sense, he argues that when selecting teaching/learning resources, educators should consider themes of resources; learners’ different situations; types of skills to be acquired as well as expected outcomes of learning purposes (Laborda, 2011). Scarino and Liddicoat (2009), and Laborda (2011) provide two general perspectives of approaching resource selection for language teaching – teachers’ perspective and learners’ perspective. Despite the criteria stated above, as LaBelle (2011, p. 94) indicates, “teachers lack adequate criteria to critically select materials that represent a variety of L2 teaching models.” As a matter of course, Chinese, as a second language to English-speaking learners, also lacks adequate criteria for the effective resource selection.
2.3.3 Resource selection for teaching Chinese as a second language

Gaps and debates appear in the existing literature regarding criteria for teaching Chinese in respect to selecting resources for English-speaking learners.

2.4 Gaps and debates in the research literature

Despite the relevant research on general teaching/learning resources, resources for language teaching/learning, resources for English teaching, and Chinese language resources for native Chinese speakers, unfortunately, research on resources for teaching Chinese as a second language is still non-existent, let alone resource selection to make Chinese learnable for English-speaking learners. There are gaps in the literature regarding criteria for effective resource selection in Chinese teaching.

A concept map is provided to illustrate those gaps (Figure 2.1). The pink boxes indicate the gaps that may be filled by this research.
In the field of teaching/learning resources in general, there is insufficient literature concerning the selection of resources or language teaching/learning resources. Selection as a step preceding adaptation, development and application merits investigation.

In the fields of teaching/learning resources, language teaching resources and Chinese language resources, a scarcity of research on resources in teaching Chinese as a second language has been detected. Chinese as a language spoken by almost 20% people in the

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**Figure 2.1 A map of key concepts arising from this literature review**

The gaps in relevant literature are elaborated upon below.
world, as well as a target language for attaining Australian Asia Literacy, needs to be studied from the aspect of second language teaching.

In the area of teaching Chinese as a second language, how to select functional resources to make it learnable remains a void.

The selection of resources for Chinese teaching/learning in this research is carried out in primary and high schools of Australia, an English-speaking venue which has not been studied before.

These gaps are expected to be filled to some extent by this research, which focuses on how teachers of Chinese select resources to make Chinese learnable as a second language for English-speaking learners.

2.5 Conclusion

This chapter has presented the literature that is related to this research. Various aspects concerning teaching/learning resource selection were covered, including the defining of teaching/learning resources, principles for resource selection, resources for language teaching, resources for English teaching and resources for Chinese teaching. The relation between resource selection and learning styles has also been considered. Gaps appear in respect to resource selection for language teaching, as well as teaching Chinese as a second language. To fill these gaps to an extent, the methodology of this research will be demonstrated in Chapter 3 and data will be analysed attempting to develop theories in Chapters 4-6 concerning these aspects.
Chapter 3 Methodology and Methods

3.1 Introduction

Methodology and methods decide how research is carried out, and whether it is properly performed. In regard with the meaning of methodology or methods, Jackson, Drummond and Camara (2007) provide a definition: “Method refers to how data is collected and methodology refers to the identification and utilization of the best approach for addressing a theoretical or practical problem” (p. 22). In other words, methods explain “what” and methodology explains “why”. This chapter introduces the methodology and methods of this study including the principles for conducting the research and how the research is carried out.

3.2 Qualitative grounded theory as research strategy

Qualitative grounded theory is the adopted research strategy considering (1) the nature and characteristics of this research; (2) the lack of existing theories in the area of resource selection for Chinese teaching; (3) the purpose of developing theories to fill literature gaps. The coming sections elaborate on why this methodology was chosen and how it was applied in this research.

3.2.1 Qualitative research

This is a qualitative research project, which intends to “study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them” (Denzin & Lincoln, 1994, p. 2). The goal and function of qualitative research are to understand the meaning of people’s actions by describing the characteristics of social phenomena or experience (Jackson, Drummond & Camara, 2007) as demonstrated in this educational research.
Six features of qualitative research and this research are provided in the Table below, which distinguish them from quantitative research:

**Table 3.1 Features of qualitative research and this research**

<table>
<thead>
<tr>
<th>Features of qualitative research</th>
<th>Features of this research</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Qualitative research’s aim is pictured clearly and in detail (Neill, 2011).</td>
<td>The aim of this study is developing criteria for teaching/learning resource selection to make Chinese learnable; There are four contributory research questions elaborating on this main question.</td>
</tr>
<tr>
<td>(2) Researchers may only know generally what the result is before the research is finished (Neill, 2011).</td>
<td>There are gaps in previous literature; The criteria for resource selection were not clear until all the data were analysed and the research was finished.</td>
</tr>
<tr>
<td>(3) Detailed design may appear as the study carries on (Neill, 2011).</td>
<td>Detailed design of this study was led by and adjusted to the ongoing analysis of the accumulated data.</td>
</tr>
<tr>
<td>(4) Researchers may become subjectively absorbed in analysing and interpreting the data (Neill, 2011).</td>
<td>The theories for resource selection were impossible to form without the researcher’s subjective interpretation of interviews, observations and documents.</td>
</tr>
<tr>
<td>(5) It is less objective and the generalizability is lower than quantitative research (Neill, 2011).</td>
<td>This study involved the researcher’s subjective interpretation and relative subjective data.</td>
</tr>
<tr>
<td>(6) The data is mostly not in the form of numbers or statistics. They are usually words, pictures or phenomena instead (Punch, 2009).</td>
<td>The collected data were mostly interviews, observations and documents.</td>
</tr>
</tbody>
</table>

From the above features, three justifications for using qualitative research in this study can be identified. First, as stated by Ellett and Beausang (2001): “when a researcher is entering an area of research that has not been studied previously, an exploratory qualitative approach is very appropriate” (p. 13). It is the case in this study, in which the researcher aims to explore and develop criteria from the data, whereas for quantitative research, researchers usually know what they are looking for before the research (McGuigan, 2003). What adds to exploration of this study are the gaps in literature for Chinese
teaching/learning resource selection, therefore, it is impossible to know exactly what to expect before the research is carried out. Since a scarcity of relevant previous research or exploration might justify the use of qualitative research (Bouck, 2008), the use of qualitative methodology in this research is warranted.

The nature of the data collected in this research also justifies the use of qualitative study. The form of the data is an essential part of the distinction between quantitative and qualitative research (Punch, 2009). Unlike the data of quantitative research which are pure numbers (Punch, 2009), normally, “qualitative research may yield stories, or pictures, or descriptions of feelings and emotions as data” (McGuigan, 2003, p. 1). The data yielded in this research are mainly interviews, observations and documents, the nature of which justifies the use of qualitative research.

Subjectiveness provides the third reason of using qualitative research for this study. The forms of qualitative data are subjective compared with solid numbers of quantitative research. Unlike quantitative research, in qualitative research as well as this study, the interpretations of the data play an important role which unavoidably involves bias of the researchers (McGuigan, 2003). In this study on resource selection, subjective factors and influence are unavoidable both in the form of data and in the interpretation of data, which justifies a qualitative study.

Consequently, qualitative research methodology and methods are applied to achieve the purpose of this research: exploring how teachers of Chinese select teaching/learning resources to make Chinese learnable for English-speaking learners. Theories for effective resource selection are intended to be generated. The data concerning resource selection are studied in different phases through qualitative methods. Comparisons are carried out to analyse the differences and similarities between the data of different teachers and students in the same phase. The analysis and interpretation are made from the qualitative data to generate criteria.
3.2.2 Grounded theory

For this research which aims at developing theories from data, grounded theory approach is applied. Grounded theory is claimed to be “currently the most widely used and popular qualitative research method across a wide range of disciplines and subject areas” (Bryant & Charmaz, 2007, p. 1) and is “a research strategy whose purpose is to generate theory from data” (Punch, 2009, p. 130). “Grounded” here means that the theory will be “grounded” in the data (Punch, 2009), and developing theory inductively from data is the most basic idea of grounded theory (Punch, 2009).

Glaser and Strauss (1967, p. 154) present seven principles of grounded theory. The Table below present these principles and the application of principles in this study, which further justify the adoption of grounded theory approach in this research.
Table 3.2 Principles of grounded theory and their application in this study

<table>
<thead>
<tr>
<th>General principles</th>
<th>Application of principles in this study</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) A spiral of cycles of data collection, coding, analysis, writing, design,</td>
<td>The data were accumulated and analysed in a spiral until the theories were generated; The details of the research design was adjusted throughout the research.</td>
</tr>
<tr>
<td>theoretical categorisation, and data collection.</td>
<td></td>
</tr>
<tr>
<td>2) The constant comparative analysis of cases with each other and to theoretical</td>
<td>Comparative analyses and category development were practiced throughout the study to develop final theories.</td>
</tr>
<tr>
<td>categories throughout each cycle.</td>
<td></td>
</tr>
<tr>
<td>3) A theoretical sampling process based upon categories developed from ongoing</td>
<td>Codes, conceptual categories and core categories developed from data were trialled, triangulated and verified to generate final criteria throughout the study.</td>
</tr>
<tr>
<td>data analysis.</td>
<td></td>
</tr>
<tr>
<td>4) The size of sample is determined by the “theoretical saturation” of categories</td>
<td>The participants in this study included 12 teachers of different subjects and 48 students of Year K to Year 7. Teachers and students are two parties of teaching/learning activities involving resource selection.</td>
</tr>
<tr>
<td>rather than by the need for demographic “representativeness” or simply lack of</td>
<td></td>
</tr>
<tr>
<td>“additional information” from new cases.</td>
<td></td>
</tr>
<tr>
<td>5) The resulting theory is developed inductively from data rather than tested by</td>
<td>The theories for effective resource selection were developed inductively from interviews, observations and documents in this study.</td>
</tr>
<tr>
<td>data, although the developing theory is continuously refined and checked by data.</td>
<td></td>
</tr>
<tr>
<td>6) Codes “emerge” from data and are not imposed a priori upon it.</td>
<td>Codes and indicators of this study emerged from data.</td>
</tr>
<tr>
<td>7) The substantive and/or formal theory outlined in the final report takes into</td>
<td>The result report of this study outlined the theories developed from the data; The report provided analytical results of the data.</td>
</tr>
<tr>
<td>account all the variations in the data and conditions associated with these</td>
<td></td>
</tr>
<tr>
<td>variations. The report is an analytical product rather than a purely descriptive</td>
<td></td>
</tr>
<tr>
<td>account. Theory development is the goal.</td>
<td></td>
</tr>
</tbody>
</table>

Compared with quantitative research methods, grounded theory as a qualitative approach focuses more on generating new theories. In qualitative grounded theory, “which aims to generate theory, no ‘up-front’ theory is proposed, and no hypotheses are formulated for testing ahead of the research” (Punch, 2009, p. 132). Therefore, “the rationale for doing a
grounded theory study is that we have no satisfactory theory on the topic, and that we do not understand enough about it to begin theorizing” (Punch, 2009, p. 133). In this way, grounded theory fits this research, as it lacks satisfactory previous theory and involves various explorations to develop theories for resource selection.

3.3 Methodological principles guiding this study

This section presents the methodological principles of this research, especially for the processes of data collection and data analysis.

3.3.1 Validity and reliability

As two critical issues concerning the quality of a qualitative research, validity and reliability receive special attention when a research is conducted. Reliability is regarded as “the extent to which a test or procedure produces similar results under constant conditions on all occasions” (Bell, 2005, p. 117). Validity means “the design of research to provide credible conclusions” (Sapsford & Jupp, 1996, cited in Bell, 2005, p. 117). Bell (2005) elaborates on validity as research where the conclusions can be inferred from the data collected and analysed. The higher these two qualities are, the more trustworthy the study is. To increase the validity and reliability of this research, triangulation was applied.

Triangular techniques in the social sciences attempt to map out, or explain more fully, the richness and complexity of human behaviour by studying it from more than one standpoint . . . triangulation is a powerful way of demonstrating concurrent validity, particularly in qualitative research. (Cohen, Manion & Morrison, 2000, p. 112)

Data triangulation and methodological triangulation were employed to increase trustworthiness. Diverse kinds of data were collected from different groups of participants. Data were in verbal and nonverbal forms; both formal and informal, including files, journals, lesson plans, teaching resources, pictures and transcripts. Data were collected from other teachers, the researcher, and the students. There were individuals as well as
groups; participants as well as observers. Multiple methods were used in data collection including interviews, documents and observation.

### 3.3.2 Triangulation

Triangulation is used in different fields and aspects such as data, theory, and researcher (Flick, 2009). It can also be related to the use of multiple methods for data collection and data analysis (Hammond & Wiriyapinit, 2005). As Robson (2002) points out, triangulation involves the researchers’ self-consciousness of double-checking findings, utilizing multiple resources and adopting various models of evidence to verify the results. The aim of triangulation in any research is to increase the reliability of data collection and analysis, and then enhances the researcher’s confidence in the reliability and validity of the research (Breitmayer, Ayres & Knafl, 1993).

To reduce subjectiveness, data triangulation and methodological triangulation are applied in this study ensuring that more than one kind of data is checked by more than one method from more than one perspective.

The nature of the data and the researcher who selects the data warrants the use of data triangulation. This qualitative research uses data of different kinds, including “detailed descriptions of situations, events, people, interactions, and observed behaviours; direct quotations from people about their experiences, attitudes, beliefs, and thoughts; and excerpts or entire passages from documents” (Shekedi, 2005, p. 47), which are mostly subjective. Moreover, while doing this research, the researcher is the one who decides what kinds of data to collect, and what participants to collect data from (Wiersma & Jurs, 2009), which adds to the subjectivity. In this way, the nature of data and the researcher who selects the data have a subjective influence on the research findings. In an effort to increase objectivity through data triangulation, data were collected from three major groups, namely, other teachers, the researcher and students. Different types of data were collected including interview transcripts, field notes, feedback, reflection journals,
teaching/learning resources, lesson plans, syllabi and curricula. The forms of data were verbal and nonverbal; numeric and non-numeric. The same kinds of data including interviews, observation notes and documents were collected in four phases respectively to make comparisons and to increase the reliability and validity of the study.

For methodological triangulation, data collection involved diverse methods in order to triangulate (Stake, 1995), namely, interviews, document collection and observation. As mentioned by Blaikie (2000):

> The advantage of methodological triangulation is that the flaws of one method are often the strengths of another, and by combining methods, researchers can achieve the best of each, while overcoming their unique deficiencies. (Blaikie, 2000, p. 263)

In this research, three methods, namely, interview, document gathering and observation were employed in data collection, aiming to maximise the credibility and quality of this research.

### 3.3.3 Ethical considerations

Ethical issues in research refer to “how values and moral principles are integrated in the actions and reflections of research” (Stige, Malterud & Midtgarden, 2009, p. 1511). Ethical issues sometimes are more crucial in qualitative research, because although all social research becomes involved in people’s lives, qualitative research is often involved to a larger extent (Punch, 2009). “Ethical issues saturate all stages of the research process” (Punch, 2009, p. 50), thereby should be taken into full consideration throughout the research. Punch (1994) sums up ethical considerations in social research as assent, harm, integrity, privacy and confidentiality in data collection and analysis, which were all handled in this research to show respect and afford protection to participants:

A National Ethics Application Form (NEAF) was submitted to the Office of Research Services at the University of Western Sydney (UWS) and an approval has been obtained.
from the Human Research Ethics Committee of UWS. A State Education Research Approval Process (SERAP) application was submitted to the NSW Department of Education and Communities in Western Sydney Region and approval has been issued. Both NEAF and SERAP approvals to some extent guarantee the ethical requirements of this research.

Participants received full disclosure about what the study involves. Voluntary consent was obtained from the participants and participants were free to refuse to answer any question. They had the right to withdraw, or to refuse to participate in any part of the research at any time (Punch, 2009).

Privacy and confidentiality are also guaranteed in this research. Participants were “anonymous and under no circumstances can they be identified” (Bell, 2005, p. 48). No private information about participants was collected, and pseudonyms were used for individuals and institutions in research results to ensure privacy and confidentiality.

No harsh questions were asked, and no offensive procedures were carried out. There was no distortion or deliberate misinterpretation of the collected data. No comparison or judgement was done from the collected data. The data generated from this research will not be used for any purpose other than this research.

3.3.4 Generalisability

Generalisation has different meanings in different areas. In social research it refers to “an act of reasoning that involves drawing broad conclusions from particular instances – that is, making an inference about the unobserved based on the observed” (Polit & Beck, 2010, p. 1451). No evidence-based operation will exist without generalisation because research results can only be applied when they can relate to contexts outside the research (Polit & Beck, 2010).
Firestone (1993) points out that there are three levels of generalization – generalisation from sample to population; analytic or theory-connected generalisation; and case-to-case transfer. Since analytic generalisation is most likely to be related with qualitative research (Polit & Beck, 2010), it was employed in this qualitative research and then maximised in four ways:

(1) “Replication in sampling” (Polit & Beck, 2010, p. 1454). In qualitative research, multiple sampling strategies in an effort to replicate are adopted to increase analytic generalisation (Polit & Beck, 2010). Twelve teachers and 48 students were recruited in this research to realise replication of sampling.

(2) Detailed description. There is a consensus that description with sufficient detail can facilitate generalisation (Polit & Beck, 2010). In this study, readers are well informed of every detail concerning data collecting conditions, sites, methods and participants (Polit & Beck, 2010), so that they can judge whether the contexts of the research are similar enough for the research results to be generalised.

(3) Conceptualisation (Punch, 2009). Conceptualisation is “clearly an aspect of analytic generalisation” (Polit & Beck, 2010, p. 1455), and means that, based on the designed and in-depth study of the collected data, multiple methods are adopted for conceptualising rather than describing in order to develop new concepts to account for what has been studied (Punch, 2009). Generalisation essentially involves abstraction of general concepts from specific observations (Stake, 1978). In this way, theories for resource selection developed in this study can be applicable to other related situations. Conceptualisation of teaching/learning resource selection phenomena was carried out through in-depth inspection and abstraction using grounded theory approach.

(4) Identifying similarities and differences. This research adopts grounded theory as its methodology. Theories are developed from the data of different situations and phenomena. “Clearly, every case that can be studied is in some respect unique; but every case is also,
in some respect, similar to other cases” (Punch, 2009, p. 122). How similar the situation is to other situations of its type may decide the extent to which findings from this study can be generalised. The researcher identified the information that is relevant to all (or many) participants and the information that was unique to particular ones in this study (Ayres, Kavanagh, & Knafl, 2003) and then formed common concepts and theories for generalisation.

3.4 Research design

According to Punch (2009), research design is:

the overall plan for a piece of research, including four main ideas – the strategy, the conceptual framework, the question of who or what will be studied, and the tools to be used for collecting and analysing empirical materials. (Punch, 2009, pp. 211-212)

The research design serving as the blueprint for this study contains an overview of this research including participants, site selection, data collection and data analysis. Twelve teachers and 48 students participated in this research. Interviews, documents and observation were the three methods employed in data collection. Grounded theory analysis was adopted to analyse collected data to develop theories regarding effective teaching/learning resource selections.

3.4.1 Participants

Twelve teachers and 48 students participated in this research to develop criteria for effective Chinese teaching/learning resource selection.

3.4.1.1 Teachers

Twelve teachers participated in this research. Five of them are teachers of Chinese, including three ROSETE beginning teachers and two experienced teachers. The other
seven are teachers of other subjects including four classroom teachers, two principals and one deputy principal.

**ROSETE teacher-researchers**

Three ROSETE Chinese teachers including the researcher participated in the study. They were divided into two subgroups, namely, two other ROSETE teacher-researchers and the researcher herself. The situations of each individual’s resource selection were studied to generate theories in this respect. The differences and similarities of resource selection were studied through comparison. The analysis and interpretation of the data were collected and used to form concepts and criteria.

ROSETE teacher-researchers were chosen in this research for the following reasons:

1) they are native Chinese speakers and have similar backgrounds as well as the capacity to teach Chinese in Australia;

2) have limited experience teaching Chinese to English-speaking learners before coming to Australia with the ROSETE program;

3) have never experienced selecting resources in Australia before, because in China teaching/learning resources are always mandated;

4) came from the Mainland of China and could be a typical sample body of Chinese teachers in Australia since Orton (2008) indicates that “90% of teachers of Chinese in Australia are native Chinese speakers (L1), most by far coming from the Mainland” (Orton, 2008, p. 21);

5) share the same identity as ROSETE teacher-researchers which allows them to have similar teaching experience during their stay in Australia.

These characteristics are common to ROSETE teacher-researchers yet unique compared with other groups of participants. Thus, it is easier for the researcher to collect data from
them as well as carry out comparisons between the individuals of ROSETE members and between ROSETE group and other participant groups.

**Experienced Chinese teachers**

Two Chinese language teachers with more than five years’ teaching experience participated in this research. They work at Australian primary and high schools and were chosen randomly. As teachers with abundant experience of teaching Chinese, their opinions were helpful for developing criteria for effective resource selection.

**Classroom teachers at Australian schools**

Five classroom teachers who observed the researcher’s Chinese lessons in Kasili Public School, Zhan’e Public School and EsJin High School also participated in this research. The data collected from them contributed to the data of local teachers’ views on teaching/learning resource selection, which provided another perspective for dealing with teaching/learning resource selection.

**Other local teachers**

Three other non-Chinese teachers, namely, two principals and one deputy principal also took part in this research. They were chosen randomly from Australian primary and high schools. All of them are highly experienced teachers who used to teach for a long time or are still teaching. They have more profound opinions on resource selection.

3.4.1.2 Students

Forty-eight Students from Kindergarten to Year 7 at Kasili Public School, Zhan’e Public School and EsJin High School voluntarily participated in this research. The students were divided into four groups of 12 students according to their ages. Those four groups are stage K/1 student group (Kindergarten, Year 1, Year 2), stage 2 student group (Year 3,
Year 4), stage 3 student group (Year 5, Year 6) and Year 7 student group. These students are all English-speaking students. The data collected from them provided the students’ perspectives concerning effective resource selection.

3.4.2 Site selection

This research was carried out at four sites, namely, the University of Western Sydney, Kasili Public School, Zhan’e Public School and EsJin High School.

*University of Western Sydney*

The University of Western Sydney (UWS) is a multi-campus university in the Western Sydney region, New South Wales, Australia. Its campuses include Parramatta, Richmond, Blacktown, Bankstown, Campbelltown and Penrith. UWS provides courses for undergraduate, postgraduate and research higher degrees at the Masters and Doctoral levels (University of Western Sydney, 2013).

The University of Western Sydney (UWS) was established on 1st January 1989, under the provisions of the University of Western Sydney Act which was passed by New South Wales Parliament in December 1988 ("UWS history,” 2014).

The ROSETE Program was initiated in 2008 by the University of Western Sydney (UWS), Western Sydney Region of the New South Wales Department of Education and Communities (NSW DEC) and the People’s Republic of China Ningbo Municipal Education Bureau (Singh & Ballantyne, 2014).

According to this program, the Ningbo Municipal Education Bureau selects up to 10 eligible graduates or experienced teachers to participate in the ROSETE Partnership (Singh & Han, in press) These volunteers will teach Chinese language and culture at Western Sydney Schools for 18 months and at the same time conduct education research to complete a Master degree of Education (Honours) at UWS.
ROSETE volunteer teacher-researchers participated in this research both as Chinese teachers and as education researchers, which explains the volunteers’ title of teacher-researcher. They are also referred to as “volunteer Chinese teacher” in this research to emphasise their role of teacher part. The researcher herself is also a member of the ROSETE program. The ROSETE program and USW will provide continuous support for this research and Chinese teaching.

**Kasili Public School**

Kasili Public School is located in a rural area in the Western Sydney region. It has been over 150 years since the school started providing education (Annual School Report- *Kasili Public School*, 2011).

The School’s aims are to allow students to have: academic excellence; positive aesthetic, personal and social attitudes; a sense of belonging; enhanced sensitivity to others and the environment; as well as participation in community (Annual School Report- *Kasili Public School*, 2011).

This school did not have its own Chinese teacher until ROSETE teacher-researchers came. Based on previous Chinese teaching and learning, some students already have substantial knowledge of Chinese language and cultures. The school staffs indicate that they are willing to continue cooperating and providing support for the ROSETE program to facilitate the data collection of this research.

**Zhan’e Public School**

Zhan’e Public School is situated in the western suburbs of Sydney. It is “strongly supported by the community” (“Our school,” 2014, para. 3) with a number of parents participating in school activities and providing fund-raising support (“Our school,” 2014).
It has a student body representing diverse backgrounds, and classes with a focus on students’ excellence in “Literacy and Numeracy” (“Our school,” 2014, para. 7), which are “complemented by a wide range of extra curricula activities” (para. 7) in an effort to develop the students in every aspect (“Our school,” 2014).

This school has ROSETE teacher-researchers as Chinese language teachers. The principal, teachers and students provide strong support for the ROSETE program.

**EsJin High School**

EsJin High School is a comprehensive high school which offers students the opportunity to achieve their personal best through teaching and learning activities in a “safe, positive and purposeful learning environment” (“Our school,” 2014, para. 2).

Their school enjoys “supportive and inclusive parent and community partnerships” (“Our school,” 2014, para. 3). It provides an atmosphere where “student well-being and enhanced academic, cultural and sporting student outcomes are embraced and delivered” (“Our school,” 2014, para. 3).

This school has its own Chinese teachers and at the same time has ROSETE teacher-researchers as Chinese teachers and assistants. The principal, teachers and students show great interest in the ROSETE program and indicate that they will continue supporting the teacher-researchers in teaching Chinese and conducting research.

### 3.5 Data collection

The data for this research mainly came from two sources: the ROSETE Program and the schools, including two primary schools and one high school. From another perspective, the data for this research came from two participant groups: (1) a teacher group including five Chinese teachers and seven teachers of other subjects; and (2) a student group including 48 students from Kindergarten to Year 7. Three methods were adopted to collect
data from participants, namely, interviews, documents and observation. The evidence collected from the participants was studied at the level of individuals, groups and as a whole. Vertical (the same individual at different times) and horizontal (different individuals at the same time) studies involving comparisons were carried out to provide a more comprehensive understanding of the collected data and the phenomena. Figure 3.1 provides a diagram of the data collection.

**Figure 3.1 Data collection**

### 3.5.1 Interviews

The importance and use of interviews as a research method is presented by Punch (2009):

> The interview is the most prominent data collection tool in qualitative research. It is a very good way of accessing people’s perceptions, meanings, definitions of situations and constructions of reality. It is also one of the most powerful ways we have of understanding others. (Punch, 2009, p. 144)
Interviews can be generally divided into structured, semi-structured and unstructured types (Fontana & Frey, 1994), which can be applied to individuals as well as groups. Minichiello, Aroni, Timewell and Alexander (1990, p. 145) provide a continuum of interviewing methods in Figure 3.2 based on the degree of structure involved.

<table>
<thead>
<tr>
<th>Structured interviews</th>
<th>Focused or semi-structured interviews</th>
<th>Unstructured interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standardized interviews</td>
<td>In-depth interviews</td>
<td>In-depth interviews</td>
</tr>
<tr>
<td>Survey interviews</td>
<td>Survey interviews</td>
<td>Clinical interviews</td>
</tr>
<tr>
<td></td>
<td>Group interviews</td>
<td>Group interviews</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Oral or life history</td>
</tr>
<tr>
<td></td>
<td></td>
<td>interviews</td>
</tr>
</tbody>
</table>

**Figure 3.2 The continuum model for interviews**

At the left end of the continuum, interviews are structured and standardised, while at the right end, interviews are unstructured and open-ended. “Structured” indicates that there are pre-prepared questions and designs (Bell, 2005) while “unstructured” means that the researcher’s intervention is low and the design is flexible (Bell, 2005). The semi-structured interview is an intermediate method which combines features of both ends, thus is more flexible and applicable in this research.

The semi-structured interview was chosen for this research for two reasons. According to Barriball and While (1994), first, it is appropriate for exploring the interviewees’ understandings of complicated and subtle issues, as well as gathering more information for specific answers. Second, diversity in the interviewees’ backgrounds and characters exclude the use of structured interviews (Barriball & While, 1994). Within the framework of the semi-structured interview, open-ended, in-depth individual interviews and group interviews were designed to obtain evidence.
In this research, all the participants except the researcher herself were interviewed. The interviewees were divided into eight subgroups: ROSETE beginning Chinese teachers; experienced Chinese teachers; classroom teachers; principals; stage K/1 students; stage 2 students; stage 3 students; and Year 7 students. This research involved four phases of data collection: Phase 1 is weeks 3-6 of term 1; phase 2 is weeks 7-10 of term 1; phase 3 is weeks 2-5 of term 2; and phase 4 is weeks 6-8 of term 2. Each interviewee was interviewed once during these four phases. The interview questions for teachers covered three aspects, namely, resource selecting attitudes and preferences, difficulties in teaching/learning resource selection, and criteria of resource selection. The interviews with students covered mainly three aspects including learning situations; the attitudes and preferences concerning selected resources; and the effectiveness of selected resources. The questions were checked and revised throughout research processes to make them more effective and cogent. All interviews were tape-recorded and transcribed for the following analysis.

**Interviews with ROSETE Chinese teachers**

Two other ROSETE beginning teachers were recruited. Their consents were obtained before being interviewed. An open-ended, in-depth interview was conducted for each member separately. This style of interview is “used as a way of understanding the complex behaviour of people without imposing any a priori categorization which might limit the field of inquiry” (Punch, 2009, p. 147). Each interviewee was interviewed once. The duration of each interview was approximately 30 minutes.

**Interviews with experienced Chinese teachers**

An open-ended, in-depth interview was conducted for each experienced Chinese language teacher, whose consents were obtained before their interviews. Each teacher was interviewed once and the length of each interview was approximately 30 minutes.
Interviews with classroom teachers

Four classroom teachers who monitored the researcher’s Chinese lessons were invited to participate in interviews. Their consents were obtained beforehand and an open-ended, in-depth individual interview was carried out once for each, which lasted for approximately 30 minutes.

Interviews with principals

Three principals were invited to participate in interviews after their consents were obtained. One open-ended, in-depth individual interview which lasted for around 30 minutes was carried out for each of them.

Interviews with students

Forty-eight Kindergarten to Year 7 students from Kasili Public School, Zhan’e Public School and EsJin High School were invited to participate in interviews. Their assent and parental consent were obtained before open-ended, in-depth group interviews took place. The students were divided into eight groups of six students each, and each group participated in one 40-minute group interview. Group interviews can not only collect common understandings from different individuals, but also get perceptions from specific individuals (Creswell, 2008). What’s more, in a group, participants will be encouraged and stimulated to spit out their inner thoughts (Punch, 2009).

3.5.2 Documents

Documents were collected for this research to complement the data collected through other methods to make the study more objective and cogent. As Punch (2009) indicates, “documents, both historical and contemporary, are a rich source of data for education and social research” (p. 158). Some research may depend entirely on documentary data while in other research such as case studies or grounded theory studies, documentary data may be
used together with interviews and observations (Punch, 2009), which is the situation of this grounded theory research. Documentary data that might be used by researchers “take a variety of forms” (Bowen, 2009, p. 27), including:

- advertisements; agendas, attendance registers, and minutes of meetings; manuals; background papers; books and brochures; diaries and journals; event programs (i.e., printed outlines); letters and memoranda; maps and charts; newspapers (clippings/articles); press releases; program proposals, application forms, and summaries; radio and television program scripts; organizational or institutional reports; survey data; and various public records. Scrapbooks and photo albums can also furnish documentary material for research purposes. These types of documents are found in libraries, newspaper archives, historical society offices, and organizational or institutional files. (Bowen, 2009, pp. 27-28)

There are mainly six types of documents collected in this research:

1) Teaching/learning resources;
2) Feedbacks from students and teachers;
3) Lesson and unit plans from teachers including the researcher;
4) Self-reflection journals of the researcher;
5) Curricula and syllabi from the Education Department and the schools;
6) Policies and reports of the government and the schools.

3.5.3 Observation

Observation as a method of first-hand data collection was adopted in this research for its practicability. Observation is “looking (often systematically) and noting systematically (always) people, events, behaviours, settings, artefacts, routines and so on” (Cohen, Manion & Morrison, 2011, p. 456). The typical characteristic of observation as a research method is that it provides an observer with the chance of collecting data naturally and directly from sites, so that the researcher is allowed to inspect directly what is happening to get solid and first-hand data (Cohen, Manion & Morrison, 2011). The researcher
observed her own Chinese lessons, other Chinese teachers’ lessons and classroom teachers’ lessons. Students’ and teachers’ performances in class were observed thoroughly and noted down during or after the observation.

Gold (1958) provides a well-known classification of observation as a research method, which includes participant observation and complete observation. Apart from complete observation used in observing other teachers’ lessons, participant observation is adopted to observe the researcher’s Chinese lessons. Participant observation differs from complete observation in the way that the researcher shifts from detached observer, to both observer and participant of what is happening (Punch, 2009). May (2001, p. 174, cited in Bell, 2005) further states that:

> Participant observation is a systematic and disciplined study which, if performed well, greatly assists in understanding human actions and beings with new ways of viewing the social world. (p. 187)

In this study, participant observation was employed in the researcher’s Chinese lessons. In her lessons, she had double identities both as a participant – the Chinese teacher – and as an observer. Lessons were observed at Kasili Public School, Zhan’e Public School and EsJin High School, and observations were noted down during the lessons or right after class. Classroom teachers were invited to observe the researcher’s lessons and provide comments.

Being a participant or not, the observation and the record of the researcher should be as objective as possible (Bell, 2005). Below is a sample field note table for note-taking in observation (participant and non-participant):
### Table 3.3 Field note table for observation

<table>
<thead>
<tr>
<th>Date:</th>
<th>Duration:</th>
<th>School:</th>
<th>Class:</th>
<th>Teacher:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>Students</td>
<td>Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>behaviour</td>
<td>speech</td>
<td>behaviour</td>
<td>speech</td>
<td>behaviour</td>
</tr>
</tbody>
</table>

#### 3.6 Data analysis

In qualitative research, data analysis has different characteristics compared with that of quantitative research. Qualitative data analysis “involves organizing, accounting for and explaining the data; in short, making sense of data in terms of the participants’ definitions of the situation, noting patterns, themes, categories and regularities” (Cohen, Manion & Morrison, 2011, p. 537). A diversity of techniques is applied in data analysis because diverse questions are dealt with and various phenomena are looked into (Coffey & Atkinson, 1996). Coffey and Atkinson (1996) emphasise that “what links all the approaches is a central concern with transforming and interpreting qualitative data – in a rigorous and scholarly way – in order to capture the complexities of the social worlds we seek to explain” (p. 3).

#### 3.6.1 Grounded theory analysis

In this research, which intends to develop criteria for how teachers of Chinese select resources to make Chinese learnable for English-speaking learners, grounded theory analysis as a qualitative approach is adopted to analyse the data collected from interviews, documents and observation.
Grounded theory is “both an overall approach to research and a set of procedures for developing theory through the analysis of data” (Punch, 2009, p. 182). Developing theories inductively from the evidence is the basic idea in grounded theory (Punch, 2009). The final goal in developing a grounded theory is to identify a core category through high level of abstraction. This core category has its ground in the data and can account for the key ideas in the data (Punch, 2009). In regard with the procedures grounded theory analysis contains, Punch (2009) offers some insights:

Grounded theory analysis does this in three steps, which are conceptually distinct but not necessarily sequential. The first is to find conceptual categories in the data, at a first level of abstraction. The second is to find relationships between these categories. The third is to conceptualize and account for these relationships at a higher level of abstraction. (Punch, 2009, p. 183)

As indicated by Punch (2009), the essential of grounded theory analysis is coding, namely, “open coding, axial coding and selective coding” (Punch, 2009, p. 183). Open coding is the first operation in the analysis of the data which is purposed to “break the data open”. Through open coding, conceptual categories with a higher abstraction compared with the description in the data are created for later use in theory developing (Punch, 2009). Axial coding is “the second operation in grounded theory analysis” (Punch, 2009, p. 186), where the conceptual categories that have been developed from open coding “are interrelated with each other” (Punch, 2009, p. 186). The third operation in grounded theory analysis is selective coding. “Selective” refers to the processes of selecting a core aspect from the previous operations and making it a core category before the researcher can concentrate on it (Punch, 2009). The three operations of coding are illustrated by Punch (2009, p. 189) in Figure 3.3.
To gain greater insight into coding and data analysis, further elaboration is necessary. Coding in qualitative analysis has its particular meaning, referred to as “the starting activity in qualitative analysis and the foundation for what comes later” (Punch, 2009, p. 175). Coding refers to attaching tags to different pieces of data (Punch, 2009). It can also be divided into descriptive coding and interpretive coding, with little inference or abstraction in the former, and a higher level of inference and conceptualization in the latter (Miles & Huberman, 1994). Coding as the essential element to all analysis lasts throughout the processes of analysis (Punch, 2009). The data collected in this study were analysed using coding which involves abstraction, comparisons and induction to produce results which were further refined and verified by the collected data chronologically. These procedures of coding and verifying were repeated until the final theories were developed.
3.6.2 Data analysis overview

In the three evidentiary chapters, namely, Chapters 4, 5 and 6, collected data are analysed using grounded theory. It involves three “conceptually distinct but not necessarily sequential” (Punch, 2009, p. 183) steps in a spiral until final core categories emerge as theoretical concepts. These theoretical concepts were refined and verified to generate the theories for effective teaching/learning resource selection. Each concept taken as part of the theoretical propositions developed in this thesis is supported by previous literature and is the result of two or all three evidentiary chapters, as shown in Tables 3.4, 3.5 and 3.6.

At the beginning of data analysis, it was difficult to see the relationships between random data. The researcher proceeded tentatively with coding and theorizing which involve abstracting, comparing and induction. Gradually, as data accumulated, codes and indicators began to emerge and the logical connections became visible, which allowed the researcher to develop conceptual categories and in turn, core categories. An overview of data analysis of 11 other teachers, the researcher and the students are demonstrated respectively in Table 3.4, Table 3.5 and Table 3.6 below.

3.6.2.1 Data analysis of 11 other teachers

Grounded theory analysis, which involves open coding, axial coding and selective coding, was adopted to analysis the data. Open coding was used to classifying and labeling the evidence from teachers’ interview transcripts, classroom observation notes and documents including curricula and syllabi. It involves “asking questions about the data” (Flick, 2009, p. 310) as well as “making comparisons for similarities and differences between each incident, event and other instances of phenomena” (Flick, 2009, p. 310). Similar codes and indicators were identified from raw data through open coding. Axial coding was then applied to group similar indicators into logically connected units to generate conceptual categories. This step involves comparisons, induction and abstraction. Furthermore, selective coding was employed using a higher level of abstraction, comparisons and
induction to identify similarities and differences in developed conceptual categories and integrate them into core categories.

The overview of grounded theory analysis concerning 11 other teachers is demonstrated in Table 3.4 below. The data analysis in Table 3.4 is developed from the right column to the left column. The detailed data analysis will be explicated in Chapter 4.

Table 3.4 Grounded theory analysis of the data from 11 teachers

<table>
<thead>
<tr>
<th>Core categories</th>
<th>Conceptual categories</th>
<th>Indicators</th>
<th>Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curriculum-appropriate</td>
<td>Curriculum is the official frameworks and guidelines for teaching</td>
<td>Resources recommended according to the curriculum;</td>
<td>Teacher E</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Curriculum linked basic resources should be used;</td>
<td>Teacher K</td>
</tr>
<tr>
<td>Students-attractive</td>
<td>Attractive resources turn students on</td>
<td>Students love multimodal text;</td>
<td>Teacher X</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Multimodal texts make students willing to learn;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Materials well linked keep students interested;</td>
<td>Teacher M</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Well-linked resources keep students learning;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Use more than one activity and resource to keep students interested;</td>
<td>Teacher L, Teacher W, Teacher X</td>
</tr>
<tr>
<td></td>
<td></td>
<td>More activities and different resources attract students;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Games on whiteboard were popular among students;</td>
<td>Teacher J</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Games make students learn better;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Students like reading <em>Harry Potter</em>;</td>
<td>Teacher E, Teacher L</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Select resources at students’ level to attract them;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Resources at students’ level make them learn better;</td>
<td>Teacher M, Teacher W</td>
</tr>
<tr>
<td>Boring resources</td>
<td>Watching video for more than 20 minutes, students became impatient;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>turn students off</td>
<td></td>
<td>Coloring is not attractive to older students;</td>
<td>Teacher M</td>
</tr>
<tr>
<td>Category</td>
<td>Description</td>
<td>Teachers</td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Students-appropriate</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning style appropriate</td>
<td>Different students learn differently;</td>
<td>Teacher L,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Teacher J</td>
<td></td>
</tr>
<tr>
<td>Level appropriate</td>
<td>Resources should be a little more difficult for the learning levels of the</td>
<td>Teacher L,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>students;</td>
<td>Teacher E</td>
<td></td>
</tr>
<tr>
<td>Appropriate amount</td>
<td>Students love videos;</td>
<td>Teacher Y</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Twenty minutes of video make students impatient;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Needs appropriate</td>
<td>Students have different needs in learning;</td>
<td>Teacher M,</td>
<td></td>
</tr>
<tr>
<td>Age appropriate</td>
<td>Colouring is attractive for Year 7 students;</td>
<td>Teacher Y,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Colouring is not attractive to Year 9 or older students;</td>
<td>Teacher M</td>
<td></td>
</tr>
<tr>
<td>Background appropriate</td>
<td>Some students have learned Chinese before;</td>
<td>Teacher M,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Some students have not learned Chinese before;</td>
<td>Teacher J</td>
<td></td>
</tr>
<tr>
<td>Knowledge appropriate</td>
<td>Students with the same age have different knowledge;</td>
<td>Teacher J</td>
<td></td>
</tr>
<tr>
<td>Gender appropriate</td>
<td>Having more boys in class, thus looked for resource themes based around boys;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning ability appropriate</td>
<td>Selected resources should be suitable for smart students;</td>
<td>Teacher L,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Resource selection should be appropriate for low-achievement students;</td>
<td>Teacher M,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Teacher Y,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Teacher J</td>
<td></td>
</tr>
<tr>
<td>Be flexible</td>
<td>Having backup resources if emergencies happen</td>
<td>Teacher C</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Internet connection failure;</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Something was wrong with the computer program;</td>
<td>Teacher E</td>
<td></td>
</tr>
<tr>
<td>Different functions of resources</td>
<td>Videos for adjusting learning atmosphere;</td>
<td>Teacher Y</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Text books for basic knowledge;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unexpected feedback</td>
<td>Students’ reactions towards resources are unexpected.</td>
<td>Teacher A,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Teacher C</td>
<td></td>
</tr>
</tbody>
</table>
3.6.2.2 Data analysis of the researcher

Open coding, axial coding and selective coding, as three critical steps of grounded theory analysis were employed to analysis the data from the researcher. Open coding was used to classifying and labeling the evidence from reflection journals, observation notes and documents. Similar indicators were divided into logically connected groups to generate conceptual categories through axial coding. Selective coding was then employed with a higher level of abstraction, comparisons and induction to identify similarities and differences in developed conceptual categories and group them into five core categories. These three types of coding were repeated in a spiral to refine and verify theoretical categories to generate final theories.

The overview of data analysis of Chapter 5 concerning the researcher’s resource selection is demonstrated in Table 3.5 below, which is developed from the right column to the left.

**Table 3.5 Grounded theory analysis of the researcher’s sample lessons**

<table>
<thead>
<tr>
<th>Core categories</th>
<th>Conceptual categories</th>
<th>Indicators</th>
<th>Sample lessons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curriculum-appropriate</td>
<td>Curriculum is the official frameworks</td>
<td>Selecting resources according to the curriculum;</td>
<td>Lesson 1, Years 4-7</td>
</tr>
<tr>
<td>Students-attractive</td>
<td>Appealing resources attract students</td>
<td>Competition to attract students and make them learn better;</td>
<td>Lesson 1, Years K-3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Math games of Chinese numbers were popular;</td>
<td>Lesson 2, Years K-3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Paper clock was fun and welcomed by students;</td>
<td>Lesson 3, Years K-3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Video helped to attract students;</td>
<td>Lesson 2, Years 4-7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Appropriate challenges made students more willing to learn;</td>
<td>Lesson 2, Years 4-7</td>
</tr>
<tr>
<td>Boring resources distract students</td>
<td>Too many new words resulted in the loss of interest;</td>
<td>Lesson 2, Years 4-7</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Difficult learning content caused students’ unwillingness to learn;</td>
<td></td>
</tr>
<tr>
<td>Balance between interests and other factors</td>
<td>Students-appropriate</td>
<td></td>
<td>Lesson 3, Years K-3</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Conflict between time and students’ interests</td>
<td>Age appropriate</td>
<td>Different resources were selected for K-7 students for the introduction to China;</td>
<td>Lesson 3, Years 4-7; Lesson 4, Years K-3</td>
</tr>
<tr>
<td></td>
<td>Level appropriate</td>
<td>Some greeting words were too difficult for students to acquire;</td>
<td>Lesson 2, Years 4-7</td>
</tr>
<tr>
<td></td>
<td>Students’ physical condition appropriate</td>
<td>Considering students’ heights for them to accomplish learning tasks;</td>
<td>Lesson 1, Years 4-7</td>
</tr>
<tr>
<td></td>
<td>Students’ personality appropriate</td>
<td>Different characteristics of four Year 1/2 classes influence learning outcomes;</td>
<td>Lesson 3, Years K-3</td>
</tr>
<tr>
<td></td>
<td>Learning ability appropriate</td>
<td>Different situations of reviewing numbers for four Year 1/2 classes;</td>
<td>Lesson 2, Years K-3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Different amount of characters for four Year 1/2 classes;</td>
<td>Lesson 2, Years K-3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Different atmospheres of four Year 1/2 classes;</td>
<td>Lesson 3, Years K-3</td>
</tr>
<tr>
<td>Be flexible</td>
<td>Emergency dealing</td>
<td>The computer broke down and used flash cards instead;</td>
<td>Lesson 1, Years K-3</td>
</tr>
<tr>
<td></td>
<td>Unexpected feedback</td>
<td>Different feedbacks of four Year 1/2 classes;</td>
<td>Lesson 2, Years K-3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Skipping redundant new words;</td>
<td>Lesson 1, Years 4-7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The video to introduce China was cut short for Year 5/6 students;</td>
<td>Lesson 3, Years 4-7; Lesson 4, Years K-3</td>
</tr>
<tr>
<td></td>
<td>Different reactions</td>
<td>Adjusting according to Year 4 to Year 7 students’ different reactions for the same topic;</td>
<td>Lesson 3, Years 4-7;</td>
</tr>
</tbody>
</table>
3.6.2.3 Data analysis of the students

Through open coding, indicators were identified from interview transcripts, observation notes and documents which include feedback, worksheets, teaching/learning resources, policy files and teaching plans. Conceptual categories were then developed from existing indicators through axial coding. Through further abstraction, comparisons and induction, three core categories were developed by selective coding. The overview of data analysis concerning students’ perspectives is illustrated in Table 3.6 below, which will be further elaborated on in Chapter 6.

Table 3.6 Grounded theory analysis of the data from students

<table>
<thead>
<tr>
<th>Core categories</th>
<th>Conceptual categories</th>
<th>Indicators</th>
<th>Student groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curriculum - appropriate</td>
<td>Conflict between curriculum’s official status and students’ attitudes</td>
<td>Tests were disliked; Tests are requested by the curriculum; Curriculum is the official frameworks for teaching;</td>
<td>Stage K/1, Stage 2, Stage 3, Year 7</td>
</tr>
<tr>
<td>Students-attractive</td>
<td>Attractive resources turn students on</td>
<td>“Fun” came as the top reason of preference; Interesting resources enabled students to learn better; Students liked white-board games most; Students liked videos most; Students thought they can learn more from videos;</td>
<td>Stage K/1, Stage 2, Stage 3, Year 7</td>
</tr>
<tr>
<td>Balance between interests and other</td>
<td>Conflict between students’ interests and the curriculum</td>
<td>Students didn’t like tests and were unwilling to learn;</td>
<td>Stage K/1, Stage 2, Stage 3, Year 7</td>
</tr>
</tbody>
</table>
### factors

<table>
<thead>
<tr>
<th>Conflicts between students’ interests and learning effects</th>
<th>The discrepancies between students’ preferences and the effectiveness of resources</th>
<th>Stage K/1, Stage 2, Stage 3, Year 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students-appropriate</td>
<td>Needs-appropriate</td>
<td>Stage 2, Stage 3, Year 7</td>
</tr>
</tbody>
</table>

#### 3.7 Conclusion

This chapter has presented the methodology and methods applied in this research. Reasons for employing a qualitative grounded theory approach have been provided and the application of grounded theory has been illustrated. The design of this research has been explained, and interviews, observation and documents were adopted as methods of data collection. The methodological principles guiding this research have also been explained, which include triangulation, validity and reliability, ethical considerations and generalizability. An overview of data analysis for Chapters 4, 5 and 6 has also been presented. In the upcoming Chapter 4 – the first evidentiary chapter – evidence of teaching/learning resource selection of 11 other teachers is demonstrated and analysed in detail.
Chapter 4 Teachers’ Teaching/learning Resource Selection

4.1 Introduction

In this first evidentiary chapter, the researcher presented and analysed the collected data from experienced Chinese language teachers, Chinese teacher-researchers, classroom teachers, and principals. The evidence is analysed to explore how to select resources for successful teaching and learning. Similarities and differences in the evidence are analysed in order to develop answers to research questions, namely, attitudes and preferences concerning resource selection, difficulties teachers have while selecting resources, and criteria for teaching/learning resource selection. The data were basically in the form of interviews, and were triangulated by observation of lessons and documents including the curriculum and syllabus. Information of participants in this chapter is illustrated in Table 4.1 below.

Table 4.1 Profiles of participants

<table>
<thead>
<tr>
<th>Participants</th>
<th>First language of participants</th>
<th>Role</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher E</td>
<td>Chinese</td>
<td>Experienced Chinese Teacher, Math teacher</td>
<td>Years 7-12</td>
</tr>
<tr>
<td>Teacher M</td>
<td>Chinese</td>
<td>Experienced Chinese Teacher</td>
<td>Years 1-6, Year 7, Years 9-10</td>
</tr>
<tr>
<td>Teacher W</td>
<td>Chinese</td>
<td>Chinese Teacher-researcher</td>
<td>Years K-6, Year 8</td>
</tr>
<tr>
<td>Teacher Y</td>
<td>Chinese</td>
<td>Chinese Teacher-researcher</td>
<td>Years K-6, adults of different ages</td>
</tr>
<tr>
<td>Teacher J</td>
<td>English</td>
<td>Classroom teacher</td>
<td>Years K-6</td>
</tr>
<tr>
<td>Teacher X</td>
<td>English</td>
<td>Classroom teacher</td>
<td>Years K-1, Years 4-6</td>
</tr>
<tr>
<td>Teacher C</td>
<td>English</td>
<td>Classroom teacher</td>
<td>Years K-6</td>
</tr>
</tbody>
</table>
Table 4.1 indicates that 11 teachers participated in interviews. Four of them are Chinese language teachers including two beginning teachers and two experienced teachers. The other seven teach various subjects other than Chinese. These seven teachers consist of four classroom teachers, two principals and one deputy principal.

4.2 Attitudes towards teaching/learning resource selection

This section aims to discover teachers’ attitudes toward teaching resource selection. Teachers’ preferences for teaching/learning resources and the underlying reasons are analysed. Difficulties encountered throughout the process of resource selection are looked into accordingly, to discern how to select resources effectively. Concepts from this section are adopted and built on below to form further criteria for resource selection.

4.2.1 Attitudes in general

This part reveals teachers’ attitudes and understandings towards teaching/learning resource selection in general and the reasons for them. Questions like “Do you think teaching/learning resource selection is important when teaching, in what way?” and “Do you think the selection of resources can affect teaching, in what way?” were put forward.

Teachers regard resource selection as an important issue in teaching and learning.

——do you think teaching resource selection is important?
——yeah, it is important. (Teacher G, 02/04/2014)
Very important. Well, they [teaching/learning resources] are important to get the students’ attention, [and] help them to become more engaged and more interested in what they are learning. (Teacher C, 18/03/2014)

Very important. Good selections of resources could help the teacher teach effectively. The teachers need to select appropriate resources and arrange the whole lesson. It is kind of basic for teaching. (Teacher M, 26/02/2014)

Quite important. If you are not well prepared, or you do not select teaching resources carefully or appropriately, the kids wouldn’t have interest in learning, so you need to catch their eyes. (Teacher W, 06/07/2014)

All teachers regarded that the selection of teaching/learning resources “that will support our languages learning program has been a critical resource decision” (Scarino & Liddicoat, 2009, p. 59). Teachers’ opinions emphasise teaching/learning resources’ role as the carriers of knowledge and tools to help students focus on learning. Resource selection is important because they are basic and function to keep students attracted. The resources’ content can affect students directly, and in turn engage students in learning activities and impact learning outcomes indirectly. Resources serve as the foundations for up-coming teaching/learning activities, thereby take major responsibilities for the outcomes of teaching and learning. If the resources are selected appropriately, the students will be more willing to learn and more likely to learn well. The importance of teaching/learning resource selection to some extent demonstrates the necessity of developing criteria for effective resource selection.

4.2.2 Preferences for teaching/learning resources

Teaching/learning resource selection is essential as confirmed by teachers in interviews, thus their preferences in resource selection would definitely impact teaching/learning effect and should be investigated. In this section, different teachers’ preferences are shown
and the reasons for their preferences are illustrated to perceive how to select resources effectively.

The data below regarding preferences for resources were from the interviews with teachers:

It’s difficult to say. We use different resources to help the students learn better. (Teacher E, 26/05/2014)

I like to choose a variety. Different students learn differently, so I try to have a variety of resources, and they sort of go with a variety of learning styles. So sometimes I might use resources that I engage closely with and the students might read alone with something for example; or other times I might give them activities where they can do group work; or maybe a problem solving activity. Sometimes I might give them a resource that, maybe just a video clip that supports what I am talking about. Or other times, it might be...like a self-based learning program that they can do on the computer at their own pace. (Teacher L, 04/06/2014)

These teachers did not have strong favour for any particular teaching/learning resource. They preferred to use a variety of resources according to different learning situations. A variety of resources can be adopted for different learning styles and teaching goals, the purpose of which is achieving the best teaching effect. These teaching/learning resources are not randomly selected or casually put together. They should be integrated into a functional whole to operate effectively. How to integrate various resources to make them function effectively is essential:

I like to choose a variety. Different students learn differently, so I try to have a variety of resources, and they sort of go with a variety of learning styles. (Teacher L, 04/06/2014)

It’s difficult to say which [teaching resource] is my favourite; I could only say that every material should be put together appropriately. (Teacher M, 26/02/2014)
I think I will use most of them. If the students haven’t learned any Chinese or are not very good at Chinese, I will start from the basics and text books will play a main role here. Pictures and blackboard writing are necessary for basics. Videos could be used to adjust the atmosphere in class. (Teacher Y, 13/08/2014)

The extracts highlight two main reasons behind teachers’ preferences for using various resources, which could be regarded as two criteria for integrating various resources into a functional entirety. First, it is because students have different learning styles, such as what Teacher L said above: “different students learn differently, so I try to have a variety of resources, and they sort of go with a variety of learning styles” (04/06/2014). When selecting resources, “taking account of the learning styles of students is likely to increase motivation and engagement in learning” (Howard & Major, 2005, p. 102) and in time achieve better results. Second, different teaching/learning resources have different functions to facilitate diverse situations of different lessons, such as what Teacher Y said: “Text books will play a main role here. Pictures and blackboard writing are necessary for basics. Videos could be used to adjust the atmosphere in class” (13/08/2014). Howard and Major (2005) also state that “teaching materials should allow for a focus on form as well as function”. Functions of different teaching/learning resources should be taken into account especially for different teaching goals.

Reasons concerning learning styles and functions both stem from teachers’ concerns about the effectiveness of the selected resources. Integration of various resources could be realized from the aspects of students’ different learning styles and different resources’ functions.

On the other hand, some teachers do prefer certain resources when choosing them:

[I prefer] interesting games on the smart board. It’s a really big thing. A lot of the kids would love it. They come up and touch. They feel that they are part of it. They feel like they are teaching as well, so interactive smart board games are good. Even just pop doing things on the white
board when they can get up and do mathematics and stuff like that, it’s still good, if you do it with smart board. (Teacher J, 11/03/2014)

I like multimodal text. I like visual literacy. Kids love it. There is a fantastic website, called the literacy shed... It’s got different videos, and it’s got great teaching ideas and it’s perfect. (Teacher X, 19/03/2014)

In these excerpts, teachers indicated that they favoured particular teaching/learning resources because it can attract students and make them learn better. Teacher J preferred games on a smart board, mainly because “a lot of the kids would love it” (Teacher J, 11/03/2014) and it is the same reason for Teacher X’s preference for “visual literacy”, which is “kids love it” (Teacher X, 19/03/2014). Students’ interests and reactions would be the indexes for teachers’ preferences when selecting resources. If students favour certain resources, they would be interested in it, which would facilitate achieving teaching/learning goals. The achievement of teaching/learning goals to a great extent indicates the success of teaching and learning.

In conclusion, some teachers do not have particular preferences, whereas other teachers have preferences when selecting resources. The main reason for their favouring particular resources is that they felt students would be attracted and became interested in learning, which in turn made them learn more effectively. It is the same reason with teachers who do not have particular preferences. They chose a variety of resources to go with different students’ learning styles and classroom situations to make it suitable for all students to learn.

In summary, the reasons for teachers’ having or not having certain preferences for teaching/learning resources are to conduct effective resource selection and enhance teaching/learning outcomes for different students. To practice effective resource selection, teachers should take into account students’ “interests and their purposes” (Howard &
Major, 2005, p. 103) as well as other related elements in complex teaching/learning situations.

4.2.3 Difficulties when performing resource selection

Difficulties and problems teachers have when performing effective teaching/learning resources are analysed in this section. Those difficulties or problems can vary from one teacher to another, yet every single difficulty can be regarded as universal as it is commonly seen. Suggested solutions to these difficulties are provided from data analysis.

The first difficulty was identified by Teacher J:

A lot of Year 3 kids have really quite less knowledge about what’s going on around them than my previous year. So trying to get them to understand an argument is being quite hard this year. Even when I take it back to arguing for an ice-cream at the shop, a lot of kids will just say, I don’t get it, so there’s been a big issue with that. It depends on the children as to whether a resource will work or not. (Teacher J, 25/03/2014)

Teacher J indicated that the previously functional resources are no longer working, which brought crisis in her lessons. Different classes of students, even of the same age, could feature different characteristics and require different resources. In that light, previously effective resources may not function now. The reason for the failure of resource selection in the data is “this year’s kids are less knowledgeable than last year’s students” (Teacher J, 25/03/2014), which indicates that students’ learning situations had changed in terms of backgrounds, foundations and learning abilities. However, the teacher’s knowledge about students hadn’t been updated. The teacher did not know current students well enough to select appropriate resources. Consequently, the resources were not updated appropriately and those that were working before did not work with the current year’s students, although the students are of the same grade at the same school.
The effectiveness of the selected teaching/learning resources depends on the students’ situations, and these situations can be varied and complicated. Functional resources can easily be ineffective if they are not suitable for students’ current situations. What then should teachers do to avoid such problems? Teachers should select resources that are appropriate for students’ situations. To select students-appropriate resources, teachers should know their students well, especially new students, prior to resource selection. As Howard and Major (2005) indicate that “the first and most important factor to be considered is the learners” (p. 103) and to make teaching resources learner-appropriate, “teachers must ensure they know their learners well” (p. 103). If the teachers know the students well, then it would be easier for them to carry out effective resource selection that is suitable for different students.

The second difficulty while selecting teaching/learning resources concerns teaching outcomes:

Sometimes you think, this [teaching resource] is fantastic. When [you] use this for the kids, they go “huh?”. So if they are looking at you as if it’s not working, it’s better be cut lost. And you [should] go “ok, let’s just refresh” and go straight back to what is persuasive texts or what is a narrative [text]. (Teacher A, 12/03/2014)

If I go into a lesson and I think it’s going to be a really good lesson, and I’ve got a wonderful resource that I planned and the students just don’t engage with it, I might move through that really quickly and get another thing out and start something else. If I’ve misread…Yeah, sometimes you get it wrong, but [it is] always good to have a backup plan definitely. (Teacher C, 18/03/2014)

As indicated, the selected resources yielded unexpected teaching/learning outcomes in class, which brought difficulties for the proceeding of the lesson or achieving the expected outcomes. The teachers’ expectations of resources differ from the real situation, as seen from the students’ reactions in the data. In that situation, teachers could drop the selected
resources at once as Teacher A did or go through them quickly as Teacher C did, and then turn to other effective teaching/learning resources. In case the teacher did misjudge the students’ learning ability, and then selected inappropriate resources, he/she needs flexibility and swiftness to rectify that. In order to achieve the flexibility and swiftness in such manoeuvre, the teachers need to be flexible:

Of course you need to be flexible, something unexpected always happen. For example, if you are going to the computer room and sometimes it could be something wrong with the computer program or something like that. You should have some back-up teaching resources. (Teacher E, 26/05/2014)

A good teacher will always have a backup plan in case something goes wrong, particularly if you are using technology. You might be planning a lesson with the laptops, or you might be planning a lesson with the interactive white board and maybe the internet connection’s not working, and so your lesson would be a disaster. Definitely I would have a backup plan, otherwise the students are just going to sit there and do nothing. Sometimes, I will have a backup plan. If I go into a lesson and I think it’s going to be a really good lesson, and I’ve got a wonderful resource that I planned and the students just don’t engage with it, I might move through that really quickly and get another thing out and start something else. If I’ve misread…Yeah, sometimes you get it wrong, but [it is] always good to have a backup plan definitely. (Teacher C, 18/03/2014)

Both Teacher E and Teacher C mentioned changing resources and “back-up resources” when referring to being flexible to deal with unexpected issues in teaching. To switch to other functional resources successfully, backup resources are indispensable when selecting them, and flexibility while teaching is also required. These skills not only require teachers to know students well to make sensible judgements, but also require them to have sufficient experience, since effective resource selections also rely on “the accumulated wisdom of best practices in the teaching profession” (D"ornyei, 2009, p. 267).
The third issue at stake in resource selection has to do with the complexity of the student body:

Every class is going to have some really smart students all the way down, and a good resource will mean that every student can engage with it... Every student will get something out of it no matter what their academic ability is. (Teacher L, 04/06/2014)

What’s more, there are about 30 students in one class, including one fourth top students, one fourth of the students that are not as good at learning, and the rest are about average. Therefore, the teacher should consider the needs of all students, and you should not let the top students wait for too long in class. Some assignment should be given to top students during their waiting. For low-achievement students, 70 percent or 80 percent acquisition of the knowledge is good enough. (Teacher M, 26/02/2014)

These pieces of data emphasise the differences in students’ learning levels and abilities. Students were basically divided into three types according to these indexes. The failure of meeting their learning abilities and levels with various appropriate resources caused ineffective teaching, and it works the same way with students’ other features, which in turn presents difficulties in the selection of teaching/learning resources. Teachers should ensure that “the teaching and learning materials with which children and students are presented, or towards which they are directed, are appropriate to their developmental growth and relevant to the achievement of appropriate learning outcomes” (The State of South Australia, Department of Education and Children’s Services, 2004, p. 7). Teaching/learning resource selections should be students-appropriate in every necessary aspect. If not, students can encounter difficulties in learning and teaching goals cannot be accomplished smoothly.

To achieve the appropriateness, first, teachers need to know the students well. Howard and Major (2005) indicate that the learners are the most important factors to be considered to see whether the resources are appropriate or not. Teachers “must ensure they know their learners well” (Howard & Major, 2005, p. 103) to embed the elements of “interest,
motivation and meeting specific individual needs” (Howard & Major, 2005, p. 103) in teaching/learning resources. In this way, to select suitable resources for different students, teachers should “take into account the diverse needs of all students” (Board of Studies, 2003, p. 5). To ensure the appropriateness of resource selection, teachers also need to have enough experience to know how to select resources for different students.

The fourth challenge in selecting resources concerns keeping students interested in learning throughout the whole lesson:

> We have such long periods, so a class goes for more than an hour. It’s a long time, I think. You have to do that to keep the students interested. So you might have to do 3 or 4 different activities in one lesson to keep them interested, otherwise they get bored if you’re just trying to do one thing for too long. (Teacher L, 04/06/2014)

Teacher L tried to select diverse resources and implement various activities to keep students interested. Keeping students engaged the whole lesson can enhance learning results by keeping students learning throughout the lesson attentively and effectively. However, it is not an easy task to accomplish. The span of students’ interest may not be too long, which depends on their age, learning ability, learning styles and teaching/learning resource content. Nedomová (2007, p. 17) points out that “young learners are not able to pay their attention for more than 10-20 minutes and after that they start to be bored and tired.” The selection of resources, which is the thing teachers can decide among different issues, should be handled to keep students attracted. The data above demonstrate that selecting a variety of resources and activities would be a good method for attracting students, especially for a long lesson. Whenever students are bored with one resource, other resources would succeed it to rekindle students’ interests and extend the time of focusing.

To keep students interested and focused, the length and amount of different resources need to be appropriate:
Take colouring as an example, you can ask Year 7 students to do it sometimes, but when they are older, it could be difficult to attract their attention. It depends on their ages. If they are older, you can cut the time of doing colouring. It’s the same with watching a video. Although they like videos, sometimes they get impatient if it takes more than 15 minutes or 20 minutes. But there is no fixed rule or something absolute. If the video or some other materials are linked well with the theme the teacher is teaching, such as there being some questions or having something they need to think about, they could do it longer. (Teacher M, 26/02/2014)

This piece of data adopts colouring and videos as two examples to illustrate the impact the amount or length of selected resources could have on teaching and learning. The length and amount of different teaching/learning resources should be appropriate for the students’ ages, learning abilities and other related factors to achieve best outcomes, where one kind of resource should not take too much time even if the students favour it. Take video as an example, even if they like it, students can still “get impatient if it takes more than 15 minutes or 20 minutes” (Teacher M, 26/02/2014). Undoubtedly, situations vary, and “there is no fixed rule or something absolute” (Teacher M, 26/02/2014) concerning the length or amount of resources. The moderate way, which is neither too little nor too much, may be a better way for selecting different kinds of resources to keep students interested. In other words, the amount and length of different resources should also be students-appropriate.

To keep students interested, different resources should also be “linked well” (Teacher M, 26/02/2014) and revolve the theme. Teachers should ensure that “the resultant materials have coherence, and that they clearly progress specific learning goals” (Howard & Major, 2005, p. 106):

Generally speaking, it’s good to have a variety [of teaching resources]. They have to be linked, and at this school because we have long periods, yeah, definitely, to keep the students interested and engaged [we need] more than one resource. (Teacher L, 04/06/2014)
Teacher L confirmed that a variety of resources should be selected and linked to keep students engaged. Applying various amount-appropriate and linked resources is a means of extending students’ interests and in turn making them learn better. In this way, students’ interest is renewed and perpetuated by a variety of resources with the same theme and appropriate amount, which in the end brings the long-lasting interest and attention throughout teaching and learning processes.

To sum up, four difficulties and corresponding solutions are derived from analysed data concerning resource selection. The four challenges include: (1) previously effective teaching/learning resources are no longer working; (2) unexpected teaching effects in class when using the selected resources; (3) selecting a variety of resources appropriately to go with different students; (4) keeping students interested throughout the whole lesson. The suggested solutions indicate that when selecting resources, teachers need to (1) know students well; (2) have enough experience; (3) make it students-appropriate; (4) be flexible; (5) use various related resources with appropriate amount. These five solutions provide concepts for further criteria generation. Selecting effective teaching/learning resources is a complicated and difficult task which involves “a lot of techniques. Being a teacher, you would never be bored. You will always have something to do and to learn” (Teacher M, 26/02/2014).

4.3 Criteria for teaching/learning resource selection from teachers’ perspectives

The five concepts developed from the previous part provide suggestions for further criteria generation. This part tries to build on these developed concepts, and in turn to develop further criteria concerning effective teaching/learning resource selection. Information from previous discussions and analyses may be used and then be built upon.
4.3.1 Curriculum-appropriate

When referring to the curriculum, Liu (2005) indicates that:

Official curriculum documents in the form of syllabus and textbooks, among other materials, define the objectives and goal, and provide the basics or major part of cultural knowledge and information for teaching and learning in schools. (Liu, 2005, p. 233)

Liu (2005) emphasises the curriculum’s official status as it provides guidelines and frameworks, which indicates that resources should be selected and applied within these frameworks involving goals, basics and cultural knowledge. Howard and Major (2005) further state that:

the curriculum and the context are variables that will significantly impact on decisions about teaching materials. Many teachers are bound by a mandated curriculum defining the content, skills and values to be taught. Whether imposed at school or state level, a curriculum outlines the goals and objectives for the learners and the course of study. (Howard & Major, 2005, p. 103)

These views elaborate on the principal role and decisive influence of the curriculum, which as the frameworks outline the goals and courses at various levels. Thus, teaching/learning resource selection should be accomplished based on it. Consequently, the curriculum will be considered first when teachers are selecting resources:

For me, I usually recommend the teaching resources that are designed according to the NSW curriculum. If that’s not enough, then I will find something more from other resources and it should be related to the NSW curriculum, (concerning) what the curriculum requires and what students should do. (Teacher E, 26/05/2014)

Similarly, teacher E regarded the curriculum a primary factor when selecting resources. She adopted the curriculum based resources as basic teaching/learning resources. Teacher
K also indicated that their school has one basic set of resources that are linked with the curriculum, which are given to the teachers at school as a standard reference:

So this resource makes it easier for the teachers at the composed class. They link [this teaching resource] to the new Australian curriculum. (Teacher K, 11/03/2014)

Teacher K’s view confirms that curriculum-related resources are recommended and preferred by teachers. The Curriculum for public schools holds official guidelines for teaching, learning and assessing, which construct an integrated system. Selecting resources according to the curriculum can facilitate achieving mandatory outcomes within this system. Teaching/learning resource selection should be carried out according to the principles and within the framework of the curriculum, which is confirmed by the State of South Australia, Department of Education and Children’s Service (2004):

Teaching and learning materials, whether purchased or donated, should be selected and accessed in ways which ensure they are directly related to a preschool’s or school’s curriculum policy and program, based on the department’s framework of standards and accountability. (The State of South Australia, Department of Education and Children’s Service, 2004, p. 10)

Curricula are developed and evaluated by authorities according to the education policy and virtual situations to guarantee that it is suitable for teaching and learning (Yasar, 2009). As a result, selecting teaching/learning resources according to the curriculum should be a primary criterion.

4.3.2 Make students interested

An old adage says: “interest is the best teacher”. Selecting resources according to students’ interests can be an important criterion for teaching/learning resource selection. The data below show us that Teacher J selected the reading resources that students are interested in:
When you try to put it into a story that you’ve seen them … I always go back to things like Harry Potter; and stuff that I’ve seen some of the kids read; or Aussie stuff they are reading in class that they got from the library. (Teacher J, 25/03/2014)

It illustrates the importance of students’ interests when determining what reading resources to choose. If students like reading Harry Potter, give them Harry Potter if possible, which could engage them and make them learn happily and productively. It is the same with other aspects, such as writing, listening and speaking. Teachers should pick out different resources that students are interested in for different situations and teaching goals to maximize learning effects.

In accordance with Teacher J’s view, Teacher E expressed that making resources appealing for students is an important criterion when selecting resources:

First of all, you need to know the level of your students and their interests, and then help them to get interested in it. (Teacher E, 26/05/2014)

She strongly supported that when selecting resources, students’ interests should be taken into consideration first. She also indicated that to attract students, the teacher first of all needs to know the students’ level. That is because if resources are at the students’ level, then they can understand them, which is a premise of their being interested in them. No one can get interested in something if they do not understand it. As Teacher L stated:

I guess I will make sure the resources are at the level of the students, so that they can understand it, if they can’t understand, then they are not going to be interested. I try to make it something different or interesting, or what they haven’t seen before. (Teacher L, 04/06/2014)

In other words, if resources are not understandable, the efforts of getting students interested would be in vain, for it would be easy for students to become bored and distracted, which in turn impairs learning outcomes.
Second, to enable students to become interested in the selected resources, teachers need to know the students’ needs:

Different students have different needs. If you don’t teach them according to their needs, they may lose interest. If they are kept interested in learning, then it would be easier for them to learn. (Teacher Y, 13/08/2014)

This excerpt reveals the importance of identifying students’ motivations and satisfying their needs. Students’ motives for learning, that is, why they are learning and what they want to get out of this learning should be considered. Most students’ learning is need-driven which may concern satisfying interest, realizing self-achievement, acquiring a second language or promotion for future career. Different needs can be satisfied with different types of resources. Games may fit joy-seeker well, whereas monotonous drills may be more suitable for serious learners learning for future career. Therefore, students’ needs and motives should be considered when performing resource selection.

However, “there is insufficient analysis of students’ needs to understand what drives them to learn” (Banegas, 2012, p. 401). If teachers know what the students’ needs are, then they could select resources according to the needs, which could arouse their interests and in turn seize their attention. Otherwise, if the students do not obtain what they need, there is a strong possibility that they lose interest in ongoing learning.

Third, to keep students interested, teachers need to select and prepare various enjoyable teaching resources, especially different activities like games or group work:

We have such long periods, so a class goes for more than an hour. It’s a long time, I think. You have to do that to keep the students interested. So you might have to do 3 or 4 different activities in one lesson to keep them interested, otherwise they get bored if you’re just trying to do one thing for too long. (Teacher L, 04/06/2014)
To attract students and keep them learning productively, different resources with various activities were prepared for the long period. For different learning periods, learning contents of resources should be varied and embedded with interesting elements. Students are children; it is unwise to base the lesson on one resource however interesting that is. Most of the time, students cannot do a single activity for very long, especially low-achievement students. Therefore, adequate interesting resources with various types should be prepared to attract students in various teaching/learning situations.

On the contrary, the data below indicate that a single type of teaching/learning resource, especially when it is uninteresting, can present difficulties in attracting students.

If you only have one type of resource, it would be difficult for you to attract students’ attention. If you let students watch videos for a long time, they could also be bored and unwilling to watch it. Therefore, the teacher should organize the lessons well with different resources. (Teacher W, 06/07/2014)

… by teaching fun. Make it engaging for the students. So choose your resources… not all written black and white texts. That is boring, [and] kids fall asleep, so you need to mix it up. You need to give them some visual text, [and] you need to give them some oral texts. (Teacher X, 02/04/2014)

Using only one type of resource is difficult to keep students interested and engaged. In Teacher X’s case, a mixture of resources was selected to attract students’ attention, including written, visual and oral texts. A variety of enjoyable resources are necessary. Otherwise, it would be difficult for students to focus continuously or learn efficiently.

In that light, how does teachers address these three aspects to make students interested? To do so, teachers need to know the students’ situations well in every respect, because students are different and their learning situations may vary:

You just have to know your students. If you’ve got a class, where the students aren’t very good, the students may have low ability. You want
Teacher L indicated that teachers need to know students’ situations and then select resources that are suitable for different students. For example, low-achievement students may need more types of resources than high-achievement students do, because high-achievement students are more self-motivated and comparatively have longer attention span. In this way, they sometimes are able to accomplish certain tasks independently based on only one resource. Thus, students’ learning situations should always be known thoroughly before selecting resources to facilitate better teaching/learning results.

Moreover, there is one thing teachers should pay special attention to when selecting teaching/learning resources:

Students are young, so they sometimes don’t know what is right or wrong. They sometimes don’t know what is good or bad for them. Therefore, the teacher should consider the students’ interests for around 70 percent, and the rest 30 percent is what the teacher should hold on to. (Teacher M, 26/02/2014)

As indicated, students’ interests should not be the sole index for teaching/learning resource selection. Teachers as adults should figure out a balanced way between leading the students and being led by them when selecting resources. Therefore, a moderate way of selecting effective resources should be adopted, where teachers should consider the students’ interests and other important factors, as well as be assertive in making students do what they should do.

In conclusion, making students interested in the selected resources is a crucial criterion when selecting resources. To get the students interested, teachers need to know the
learning levels of the students, the needs of the students as well as selecting various enjoyable and attractive resources, which all require the teacher to know students well to be aware of what resources can attract them. In addition, teachers sometimes need to make students do what they should do.

4.3.3 Student appropriateness

According to Rashidi and Safari (2010), learners should be a factor taken into consideration when selecting resources. Resource selection should be conducted according to learners in different ways, such as ages, needs, learning levels and learning abilities:

There’s a Chinese saying: “yin cai shi jiao”. It means you give students different types of resources and use different teaching methods according to their abilities and situations. (Teacher M, 26/02/2014)

Teacher M indicated that different students have different learning abilities and situations, and should be given different resources to achieve better teaching/learning results. The focus of teaching/learning resources should be on “the needs, interests and abilities of each student” (Board of Studies NSW, 2003, p. 6), and they should “be contextualised to the experiences, realities and first languages of the learners” (Howard & Major, 2005, p. 105). Students who are good at learning by repeating should be supplied with more drills while students who prefer interaction should be given more chances to learn through games and group work. Without suitable resources to facilitate different students’ learning situations, it would be difficult for the students to learn well.

Teacher J supported this view by stating that every factor including students’ gender, backgrounds, learning styles, learning abilities, should be considered when selecting resources:

For example, this year, I have mainly boys over girls, so when I am looking at topics, I try to look at more themes that are based around boys, to keep the boys interested. Otherwise if any of those boys start to
get unsettled, the whole class becomes unsettled. [I choose] things that are related to semi-rural areas and things to do with farming, and also something like that all the kids will like, [such as] motorcycle riding. So it’s [about] looking at the kids in your class, their interests, and the local area, and finding resources to do that. [You should also consider] different children’s learning abilities. (Teacher J, 11/03/2014)

Different teaching/learning resources were selected for boys and girls in terms of their different characteristics. Students’ backgrounds, hobbies and learning abilities were also identified and considered to carry out effective resource selection. As the State of South Australia, Department of Education and Children’s Services (2004) indicates, resource selections should be “relevant for the age of the children or students for whom they are selected and for their emotional, intellectual, social and cultural development” (p. 10), which suggests that the selected resources should be appropriate for students in every necessary respect.

The data below also reveals that resource selection should be suitable for students’ levels:

I guess you should consider the level of the students. However, sometimes, you should give them something more difficult to deal with, because when students are reading, usually, they don’t need to understand every word in it. Sometimes they only need to know the gist.

(Teacher E, 26/05/2014)

Teacher E indicated that resources sometimes should be a little bit difficult to allow students to learn more, which is regarded as appropriate for constructive learning. When the resources are a little bit difficult for the students, they won’t discourage students for being too difficult or make them lose interest for being too easy. These resources could provide students with new knowledge and meanwhile present manageable challenges to keep them attracted and moving on.

Students have various learning styles (Oxford, 2002) which “needed to be catered for” (Tomlinson, 2011, p. 18) in language learning resources. Thus resource selections “should
take into account that learners differ in learning styles” (Tomlinson, 2011, p. 18), and a
variety of resources should be selected according to students’ different situations in the
aspect of learning styles.

A popular classification elaborates on learning styles and divides them into seven types
(Lepi, 2012), namely, “visual learning style; aural learning style; verbal learning style;
physical learning style; logical learning style; social learning style and solitary learning
style” (“Overview of learning styles,” 2014). Learners with visual learning styles prefer
resources such as pictures or videos. Aural-style learners prefer music or tape-records.
Physical-learning style learners like to do things like getting away from their seats and
doing body movements. Solitary-learning style students prefer resources such as books or
worksheets. “Different learners have different preferred learning styles” (Tomlinson,
2011, p. 18), which calls for different suitable teaching/learning resources, such as
pictures, music, books or physical activities. Most people adopt a variety of learning
styles together and the situation of one learner’s learning styles can change as well, which
require a variety of resources even more.

Learning styles have more influence than people think. One’s preferred learning styles
basically guide the way one learn. They also change the way learners interpret
experiences; the way learners recall information and even the words learners select to use
(“Overview of learning styles,” 2014). The importance and the diversity of learning styles
warrant the selection of diverse student-appropriate resources. While selecting resources,
teachers should be “aware of and cater for differences of preferred learning styles in their
materials” (Tomlinson, 2011, p. 19).

To make resource selection students-appropriate, teachers need to know the students well
in every possible aspect, including their levels, needs, backgrounds, gender, ages, learning
abilities and learning styles. Consequently, how to know students well to select resources
becomes an important issue.
To know the students well, first, teachers need to be observant. They need to observe the students at the beginning of teaching/learning and know the students as well and as quickly as possible:

You sort of observed them for first few days in school and what they do and how they learn. It all depends on the class. Each year can be different. Some kids would like to sit and listen to you, and have lots of discussions, like two years ago. And then this year, the kids really like to do stuff with other people and pair up a lot. I have a few kids [who] are not very confident, so pairing up with someone gives them their confidence. (Teacher J, 11/03/2014)

Through close observation, teachers identify individual student’s personality, hobby, and ways of acting, which all help to conduct effective resource selection. Teachers can also identify the whole class’ characteristics and manage it more efficiently in terms of resource selection.

Second, to know students well, teachers need to be experienced enough to know what to expect when applying different resources:

Teachers need to select resources according to the students’ interests and learning situations. I have taught them for a long time, so I know what the students like and what they want to learn. Experience is very important. (Teacher M, 26/02/2014)

I have different resources for lessons in the morning to lessons in the afternoon, because students are usually a lot less engaged in the afternoon, [being] a little bit tired, so they might have more interesting activities. Whereas early in the morning, when they are fresh, they might have more intensive sort of activities; [and] might do more reading or more writing. So the time of the day impacts your lesson as well. (Teacher L, 04/06/2014)

Teacher M emphasised the important role experience plays in terms of knowing students. If the teachers have abundant experience with the target students, they would know them well to conduct successful teaching including selecting resources. In Teacher L’s
interview, she elaborated on it by demonstrating knowledge which only experienced teachers possess. She explained that students learn more efficiently in the morning than in the afternoon. If a teacher didn’t have such kind of experience before, it would be difficult for him/her to expect what will come and what to select as functional resources. When experienced teachers are selecting resources, they would consider students’ reactions and the related factors according to their experience, to avoid difficulties and disasters. In this way, to select students-appropriate teaching resources, teachers need to have enough experience.

In summary, a teacher should select teaching/learning resources according to students’ conditions. To be specific, resource selection should be students-appropriate in related aspects including needs, ages, backgrounds, learning styles, gender, levels, and interests. To make resource selection students-appropriate, teachers, first, need to be observant to know what the students need and second need to have enough experience to anticipate the students’ feedback and reactions towards different resources.

4.3.4 Be flexible

To perform effective teaching/learning resource selection, the selected resources should “be flexible and to offer teachers and students opportunities for localization, personalization and choice” (Tomlinson, 2012, p. 158). As indicated below, to make it flexible enough, first, a teacher needs to have selected enough backup resources before lessons:

A good teacher will always have a backup plan in case something goes wrong, particularly if you are using technology. You might be planning a lesson with the laptops; or you might be planning a lesson with the interactive white board; and maybe the internet connection’s not working and therefore your lesson would be a disaster. Definitely, I would have a backup plan; otherwise the students [will] just sit there and do nothing. (Teacher C, 18/03/2014)
Teacher C suggested that being flexible is necessary given the complex situations in a classroom where adolescents can produce various unexpected incidents, and back-up resources are indispensable in such environment to achieve flexibility. In case something in the selected resources goes awry, back-up resources would always back the teacher up and avoid disasters.

Apart from the flexibility before lessons when selecting resources, the selected resources also need to be adjusted flexibly during teaching processes considering different situations in class, which include teaching purposes, students’ feedback, time management, classroom management, and teaching-goal achievement:

Sometimes you think, this [teaching resource] is fantastic. When [you] use this for the kids, they go “huh?” . So if they are looking at you as if it’s not working, it’s better be cut lost. And you [should] go “ok, let’s just refresh” and go straight back to what is persuasive text or what is a narrative [text]. (Teacher A, 12/03/2014)

The selected resources Teacher A thought would be fantastic turned out to be confusing and ineffective. Seeing that, Teacher A quickly switched to other effective resources that were prepared before. In such cases, flexibility during teaching is indispensable. The selected resources need to be adjusted frequently according to the situations of the lesson. The lesson would be a disaster if the teacher sticks to the originally selected resources and ignores the real situation.

In a word, when selecting teaching/learning resources, teachers need to make it flexible. To achieve this, first of all, enough backup teaching resources should be prepared to cope with unexpected situations. Also, adjustments during the processes of teaching concerning teaching/learning resources should be made whenever necessary.
4.4 Conclusion

This chapter illustrated evidence from 11 teachers, in terms of attitudes and preferences concerning resource selection; difficulties teachers encounter while selecting resources, and criteria for effective teaching/learning resource selection.

Teachers all regard teaching/learning resource selection important and have their own views on preferences for resources. Their main reason for favouring certain resources or not favouring any resource is in its deemed effectiveness for teaching and learning. There are mainly four difficulties when teachers are selecting teaching/learning resources and solutions to these difficulties were suggested.

From teachers’ perspectives, there are mainly four criteria for selecting teaching/learning resources, which are “curriculum-appropriate, students-attractive, students-appropriate and be flexible”.

Chapter 5 Researcher’s Teaching/learning Resource Selection

5.1 Introduction

In this chapter, the researcher demonstrates and analyses seven sample Chinese lessons in respect to resource selection. Four Chinese lessons for Kindergarten to Year 3 students and three lessons for Year 4 to Year 7 students were selected.

Part or all of the processes and strategies of each sample lesson concerning teaching/learning resource selection are demonstrated and analysed. All the selected resources are presented in Tables 5.1 and 5.2 of section 5.3, which include games, pictures, writing sheets, videos and other related resources.

The data in this chapter are basically collected from observation of the researcher’s lessons, which is mainly in the form of reflection journals and field notes. Data from documents including government policies, curricula, time tables, feedback, teaching resources, and lesson plans are also used to triangulate the data obtained from observations.

5.2 Seven sample lessons divided into two sets

Seven selected sample lessons are divided into two sets. The first set is four lessons for students from Kindergarten to Year 3. The second set is three lessons for students from Year 4 to Year 7.

Kindergarten, Years 1-3 basically have the same topic in each lesson. The contents vary with different levels of difficulty according to their ages, learning abilities, and “cognitive levels” which is a term that emphasises “the individual L2 learner’s personal reasoning abilities to recognize and process information” (LaBelle, 2011, p. 97). On the other hand,
the lessons for higher school years – Years 4-7 – cover the same topics without critical adaptation as well. The contents of the lessons also vary according to students’ ages, learning abilities and cognitive levels. The two sets of lessons are demonstrated in Tables 5.1 and 5.2 below. Both tables show the general information of the sample lessons chronologically. The tables also present different teaching/learning resources the researcher selected and used in the lessons.

Table 5.1 Four sample lessons for Years K-3, chronologically:

<table>
<thead>
<tr>
<th>Lesson 1: numbers (01)</th>
<th>Lesson 2: numbers (02)</th>
<th>Lesson 3: time</th>
<th>Lesson 4: review and Introduction to China</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pictures</td>
<td>Pictures</td>
<td>Pictures</td>
<td>Pictures</td>
</tr>
<tr>
<td>Videos (number counting)</td>
<td></td>
<td></td>
<td>Videos (easy one)</td>
</tr>
<tr>
<td>Games (number search, match)</td>
<td>Games (mathematic balloon pop, number search)</td>
<td></td>
<td>Games (map tracing)</td>
</tr>
<tr>
<td></td>
<td>Writing (character tracing)</td>
<td>Writing (character tracing)</td>
<td>Writing (character tracing)</td>
</tr>
<tr>
<td>Flash cards</td>
<td>Flash cards</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(numbers and characters)</td>
<td>(numbers and characters)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smart whiteboard</td>
<td>Smart whiteboard</td>
<td>Smart whiteboard</td>
<td>Smart whiteboard</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Paper clock</td>
<td></td>
</tr>
<tr>
<td>Hand gestures</td>
<td>Hand gestures</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 5.2 Three sample lessons for Years 4-7, chronologically:

<table>
<thead>
<tr>
<th>Lesson 1: greetings</th>
<th>Lesson 2: greetings and family members</th>
<th>Lesson 3: revision and Introduction to China</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPT</td>
<td></td>
<td>Pictures</td>
</tr>
<tr>
<td>Videos</td>
<td>Colouring</td>
<td>Videos (difficult one)</td>
</tr>
<tr>
<td>Smart whiteboard</td>
<td>Smart whiteboard</td>
<td>Games (map tracing)</td>
</tr>
<tr>
<td>Games (whispering)</td>
<td>Games (word search, match)</td>
<td>Games (map tracing)</td>
</tr>
<tr>
<td>Flash cards</td>
<td></td>
<td>Writing (character tracing)</td>
</tr>
<tr>
<td>Writing (character tracing)</td>
<td></td>
<td>Practice (put greetings, family members and “I love you” together)</td>
</tr>
<tr>
<td>Practice (dialogue)</td>
<td></td>
<td>Paper cutting (panda)</td>
</tr>
</tbody>
</table>

These two sets of lessons have been selected for the following reasons: (1) they are coherent so they are connected with each other; yet they are (2) still independent and stand on their own; (3) different grades from Years K-3 have the same teaching topics, similar ways of teaching, yet adapted teaching/learning content, and it is the same with Year 4 to Year 7; (4) lessons focus on Chinese culture with the same topics for all grades, yet are adapted in teaching content and methods.

These four characteristics help to carry out a better comparison between lessons of the same grade as well as across grades. In this way, the comparisons can be carried out more conveniently and effectively, to develop criteria for resource selection.

5.3 Four sample lessons for Years K-3, chronologically:

In this section, four sample lessons for k-3 students are presented and analysed. The topics of four lessons are: numbers (01); numbers (02); time; revision and introduction to China.
These four lessons are interrelated and chronologically coherent, making them ideal for analysis.

5.3.1 Teaching processes and analysis of the first sample lesson

In this lesson, the researcher taught students how to pronounce numbers 0 to 10 in Chinese and the hand gestures for these numbers. Cultures concerning numbers were also taught including a comparison of lucky numbers and unlucky numbers between China and Australia. Presented are some processes of this lesson:

There was something wrong with the computer for a while at the beginning of the lesson, so I used the flashcards I had prepared to show students the numbers in Pinyin. It was the first time that I used flash cards as a resource, so the students were attracted to them, and more students put up their hands to try to say it. (Reflection journal, 11/02/2014, term 1 week 03)

In the data above, the computer went wrong for a while. Luckily the researcher had flash cards as backup resources and are experienced enough to deal with such unexpected incidents. Therefore, Chinese teachers should be flexible when preparing teaching/learning resources, because no one can predict what will happen when teaching. Having backup resources and accumulate enough experience to deal with emergencies are vital for successful resource selection.

Furthermore, flash cards as a kind of new resource attracted students and made them more willing to learn. In this light, when selecting resources, “tapping into the interests… is likely to increase motivation and engagement in learning” (Howard & Major, 2005, p. 102). If students are not interested in the selected resources, they can become distracted easily, which impairs teaching and learning. Consequently, students’ interests need to be taken into consideration when selecting resources.
The following evidence also shows the importance of getting students interested in selected resources:

I divided the kindergarten kids into boy group and girl group to attract some naughty boys. I prepared a number counting video to let students say the numbers with the video. Then I asked the boys and girls to follow the video separately to see who did a better job. The naughty boys were attracted by the fun video and the competition between girls and boys, thus were no longer talking with others. Instead, they paid close attention to how to say the numbers and tried their best to defeat the girls. (Reflection journal, 11/02/2014, term 1 week 03)

In order to attract the naughty boys, the researcher introduced competition into the game. The boys showed more interest when they wanted to defeat the girls in this game, which made them learn harder and led to better teaching/learning results.

Hence, to let students learn better, the teacher should first let students become interested in what they are learning. Teachers could adopt different methods to make resources interesting, including using new resources, integrating interesting elements, and engaging competition and challenges. Therefore, teaching/learning resources should first of all be interesting in students’ eyes. The competitive game and a number counting video here played the role of attracting the students and making them learn productively.

5.3.2 Teaching processes and analysis of the second sample lesson

In this lesson, numbers from 0 to 10 and the hand gestures of the ten numbers were reviewed. Activities were carried out for students to consolidate the knowledge of numbers they had been exposed to. The characters of ten numbers were taught as well.

In the following lesson, the students enjoyed the games of numbers:

Year 1/2 had a second lesson of numbers. I asked students to find the numbers 0 to 10 one by one in the picture when I was saying each
number in Chinese (Figure 5.1). I asked students to circle the number and say the number out loud when they had found it. (Reflection journal, 18/02/2014, term 1 week 04)

**Figure 5.1 Game: where are the numbers?**

Then I let students do maths games with numbers written in Chinese Pinyin or Chinese characters (Figure 5.2). Students needed to pop the balloon with the correct answer to the math problem. If they could not identify the characters, I gave students hint by saying the number in Chinese. When they could not even identify the pronunciation, I simply told them the number in English or asked the student to choose another student to help out. (Reflection journal, 18/02/2014, term 1 week 04)

**Figure 5.2 Math games in Chinese**
It was well received by students, and some students were even calling out loud wanting to try it, although it was stopped by me and the classroom teacher. Students were really interested, so almost every student put up their hands to participate. After these activities, most students could say the numbers and identify the numbers both by pronunciation and shapes of the characters. (Reflection journal, 18/02/2014, term 1 week 04)

These pieces of reflection suggest that the two math games were well received by the students. They tried their best to have an opportunity to accomplish the task. The first game involved a picture and number seeking, and the second involved maths and balloon popping. Both games were new to the students and integrated the elements that students regarded as interesting. The teaching/learning goals were also achieved by the two games since “most of the students could say the numbers and identify the numbers both by pronunciation and shapes of the characters” (Reflection journal, 18/02/2014, term 1 week 04). These appealing games as resources helped students to engage and learn better. As also shown by students’ feedback, that they were interested in doing maths games in Chinese:

When asked what their favourite game is, 4 out of 12 Year 1/2 students wrote: maths or numbers/maths. (Feedback from students, 18/06/2014, term 2 week 8)

Maths games that were both interesting and informative were not only favoured by students but also beneficial for their study. In this way, teaching/learning resources “should be derived from the learners’ interests” (Rashidi & Safari, 2011, p. 255) to help them learn more productively. Some students may not be interested in learning a language,
but they may like maths and other science subjects. Therefore, interdisciplinary teaching/learning resources, which link students’ favoured subjects with Chinese, are helpful for them to learn the language by triggering their interests.

Moreover, the maths games were not only helpful for students who are good at math, but also helpful for the students who are good at Chinese and other language learning as well as students who like games. Most students are fond of games, which stands as a nature of young adolescents. Therefore, students are more willing to learn with games and the teaching/learning effects would be better as indicated above. However, different students may favour different games. The resources and games selected for different students should vary according to these variables and the needs of knowing what students want or like is necessary. As Howard and Major (2005) express, when approaching resources in terms of interest and “meeting specific individual needs” (p. 103), “clearly teachers must ensure they know their learners well” (p. 103). Consequently, when selecting teaching/learning resources, teachers should ensure that they are students-appropriate. To achieve students-appropriateness, “the first and the most important factor to be considered is the learners” (Howard & Major, 2005, p. 104), and resources should be contextualised to the backgrounds, realities and other factors of the learners (Howard & Major, 2005).

Similarly, the following data also reveal the importance of achieving students-appropriateness when selecting resources:

Four classes of Year1/2 all had numbers as the topic. I reviewed the numbers they had learned in last lesson. For three classes, the length of review part was just perfect. Most students still remembered what they had learned last time. Only a few students did not know how to say the numbers from 0 to 10. But in one class, a lot of students didn’t know how to say the numbers they had learned. Therefore, I spent more time to review the numbers using different resources including pictures and matching games. (Reflection journal, 19/02/2014, term 1 week 04)
Three classes learned better than the fourth one, as most of them remembered the numbers they had learned. For the low-achievement class, more time and resources were invested in reviewing and consolidation, and less time and resources were used for new knowledge. Different students’ different situations were considered concerning resource selection. Different types of resources should be selected with appropriate amount to meet the needs of different students. In this way, being students-appropriate should be a criterion when teachers select resources.

The following extract elaborates further on the importance of selecting resources according to different students’ situations:

For four classes of the same year, they have different characteristics. One class is more patient and quicker at learning. Most of the students could say the numbers correctly and identify the characters when learning them, so I taught them 10 characters of numbers 1-10, and then showed them flash cards to make it more interesting. Another class is not so good at learning. They could barely remember how to say the numbers, so I only taught them 5 Chinese characters from number 1 to 5. I used various resources for consolidation to help them remember, and there was no more time for flash cards. The other two classes are in the middle, so 8 characters of numbers were taught to them. (Reflection journal, 19/02/2014, term 1, week 04)

In the above case, the students of the same year showed different situations of acquiring numbers, which were generally influenced by their learning abilities. Judging from these situations, the teacher gave different amounts of resources to facilitate learning. Thus the amount of resources should be appropriate for the students’ learning ability. For those who can learn more and quicker, more resources and more difficult resources should be selected to increase the input. For those who cannot learn efficiently, more resources should be selected for consolidation to help them remember. Consequently, resources should always be suitable for the students’ learning abilities as well as other influential factors. Teachers should make teaching/learning resource selection students-appropriate regarding various aspects.
A second finding concerns teachers’ reactions to students’ feedback. In the data above, the researcher cut down the amount of new characters when realizing that students were not so quick at learning. It is the opposite when the teacher finds out that the students are better at learning than expected, under which circumstance, more resources would be needed. Therefore, backup resources would be necessary in case some changes are made when teaching. Here, the teacher was quite flexible in managing the selected resources to carry out effective teaching according to the unexpected reactions. Therefore, “language teaching materials should be flexible” (Howard & Major, 2005, p. 107), and flexibility can be in the fields of content, approach, learning level, teaching approach and other related areas (Maley, 2003). As a result, making resources flexible should be a criterion for effective teaching/learning resource selection.

5.3.3 Teaching processes and analysis of the third sample lesson

In this lesson, the researcher reviewed how to say numbers from 0 to 10 and how to write the characters of numbers 1 to 10. Then, she taught students how to say 11 which just puts the sounds of 10 and 1 together. Subsequently, students were taught how to say 12 which just puts the sounds of 10 and 2 together. After that, the students figured out the rules of saying the numbers 13 to 19 by themselves. Moreover, the researcher taught students how to say time in Chinese which is just a combination of the numbers 1 to 12 and the word “o’clock” which is “点” in Chinese. Several activities were organized to consolidate how to say time in Chinese. Some teaching processes and strategies are shown below:

I helped the students to review the numbers 0 to 10 by playing a number counting video. The students can follow the rhythm of the number song in the video and count numbers together with it. One class of Year 1/2 students really liked it and asked me whether they could do it again. Therefore, I played the video a second time for them. Then several students asked to play it a third time. Thinking that the time left might not be enough for the coming new contents, I told them that we needed to move on to the new contents concerning how to say time in Chinese. (Reflection journal, 26/02/2014, term 1 week 05)
From the above evidentiary excerpt, it seems that these particular students are motivated and driven mostly by their own educational interests. They were interested in the number counting song in the video, so they asked to practice this again and again, regardless of the time or any other factor. Teachers, as the only adults in class, take charge of the classroom concerning every tiny thing that happens while teaching and learning. In particular, resource selection and use has to be closely monitored and kept under control. The teacher-researcher did not play the video for a third time, because she did not see any educational potential for capitalising on students’ interest in the resources any further. However, with greater knowledge, better practices and stronger engagement the teacher-researcher could have extracted many more teaching/learning opportunities from this resource. However, the teacher-researcher moved on to use new resources, assuming that this was necessary to making sure enough time was spent on learning new knowledge to achieve teaching/learning targets. This can now be seen as a questionable assumption. The question for the teacher-researcher has to be how to secure added learning from resources in which students have a demonstrable interest.

The teacher-researcher assumed that the students’ interests should not be the only index when dealing with resource selection. Other factors, such as the amount of different resources, the time allocation for the selected resources, and the teaching goals have been considered. Whether this means that these considerations have to at variance with students’ interests is open to questioning. This is because the importance of students’ attractiveness is undeniable when selecting teaching/learning resources:

I made a paper clock for the students, which looked not so beautiful yet was interesting and useful [see Figure 5.3]. I asked the students to move the hands of the clock to show the time I gave them in Chinese. The students were interested and almost all put up their hands to get a chance to do it. (Reflection journal, 26/02/2014, term 1 week 05)
Through this piece of reflection, the popularity of the paper clock game was demonstrated. Students as children with intense curiosity always want to try something new and attractive, so new and interesting resources such as the paper clock game could facilitate teaching and learning to a great extent. In this way, making students interested in resources is vital and to make students interested, selecting new and attractive resources is a good method, which could help students learn Chinese more productively.

Furthermore, for different classes, resources should be appropriate for students’ personalities, learning abilities, levels and other aspects:

All four classes of Year 1/2 students had different characteristics. One class is more active and willing to learn. When I let them count numbers from 0 to 10 in Chinese, almost all of them put up their hands and succeeded in counting. Another class is active in other aspects and is not very willing to learn. When I asked them to count in Chinese, most of them put up their hands, but when I picked them, one student asked a funny question not related to the learning content; another student simply said “I forgot” trying to make others laugh and some other students could only count 2 to 5 numbers correctly. A third class is quiet and good at learning. Although when I ask them to count from 0 to 10 they did not put up their hands, when they were picked, most of
them could count the numbers correctly. The fourth class is quiet and not so good at learning. They didn’t put up hands very often, and even when they were picked, they could not do it correctly. Thus, four classes of the same stage have four different characters and atmospheres, and in that light different teaching/learning resources are selected for them. For the first class, both games and drills are prepared. For the second one, fewer games and more drills are prepared. For the third one, both games and drills are prepared. For the last one, more games and fewer drills are prepared. (Reflection journal, 26/02/2014, term 1 week 05)

As demonstrated above, different classes have different characteristics in terms of learning. For better-achieving classes, no matter how active or quiet, both games and drills can help them learn well. For low-achievement classes, if they are too quiet, more games should be selected to make them active and learn better; if they are too active, “repetition, drills and memorization” (LaBelle, 2011, p. 96) which are typical in behaviourist teaching approach (LaBelle, 2011) should be selected to help them focus and keep learning. Therefore, different types of students need different types of resources, and resources should always be students-appropriate at the level of individuals and entireties. Generally speaking, a variety of teaching/learning resources would yield better learning results from students as a whole.

5.3.4 Teaching processes and the analysis of the fourth sample lesson

This lesson was the revision of numbers and time, and the introduction to China. After reviewing with various resources, the researcher imparted some knowledge of China to students, including some characters and famous things of China. In language aspect, she taught students how to say China and how to write China in Chinese characters. She also taught students how to say some famous things in Chinese such as “the Great Wall”, “panda”, “Shanghai”, “Beijing” and “Yangzi River”. In culture aspect, the researcher gave students relatively simple introduction to China including the Great Wall, Shanghai and Beijing. Activities and games were designed for this lesson.
The detailed processes and analysis of this lesson are placed in section 5.5.4 together with the third sample lesson for Year 4 to Year 7 to carry out a comparison between different grades with the same topic.

5.3.5 Summary of resource selection criteria for Years K-3

From the four sample lessons for students from Kindergarten to Year 3, we can discern that four criteria for resource selection were developed.

The first criterion is that selected resources should attract students. The second criterion is that attractiveness to students should not be the sole index when they are at variance with other important factors. The third criterion is that when selecting resources, teachers should make the resources students-appropriate. The fourth is that teaching/learning resource selection should be flexible both pre-lesson and in-lesson.

5.4 Three sample lessons for Years 4-7, chronologically:

In this section, three coherent sample lessons for Years 4-7 are demonstrated and analysed. The first lesson is greetings; the second lesson is greetings and family members; and the third lesson is revision and introduction to China.

5.4.1 Teaching processes and analysis of the first sample lesson

This lesson focused on basic Chinese greetings. Different teaching/learning resources were selected to help students learn. Greetings such as “hello”, “thank you”, “no worries”, “sorry”, “it’s ok” and “goodbye” were taught. Two Chinese characters: “你 (nǐ)” which means “you”, and “我 (wǒ)” which means “me” were introduced. Body-languages of greeting people were illustrated in this lesson.

When selecting resources for greetings, various factors were considered:
Last term, I found that when the students were doing the matching game on the white board, they sometimes could not reach the words high up on the board, especially for some short students. Therefore, this time, I took students’ height into consideration. I moved the words onto the lower half of the board to make sure all students could reach them.

(Reflection journal, 18/02/2014, term 1 week 04)

In this excerpt, the students’ height was considered to guarantee that every student would be able to accomplish the task. Although a comparative minor factor, the students’ height influences the results of learning activities especially for shorter students. Therefore, to make it students-appropriate, any relevant factor should be properly dealt with when selecting teaching/learning resources ensuring that the lesson progresses smoothly and the teaching goals are achieved.

Flexibility is another important issue when approaching teaching/learning resource selection:

There were a lot of new words to learn in greetings, so when came to the third word, some students became absent-minded. I noticed that some students began to do their own things, so I dropped the new words and went to interactive board games. Then students were attracted again and put up their hands to participate. When the game was finished, I went back to the new words. After I taught them another two new words, I found some content too difficult and there were too many new words for them, because some students looked elsewhere and some stopped putting up hands. Seeing that, I skipped the remaining new words for good and went directly to an interesting video clip.

(Reflection journal, 18/02/2014, term 1 week 04)

In the lesson above, three major changes occurred concerning the selected resources. First, when the teacher noticed the students’ absent-mindedness, she dropped new words and switched to games. Second, when students were attracted again, she switched back to new words. Third, when students became bored with the difficult new words, she switched to a video. The changes were all performed according to the real classroom situations with different resources. Therefore, resource selection should be flexible enough to deal with
different situations in class when teaching and learning. They should “allow teachers and students to make choices” (Howard & Major, 2005, p. 107). To make choices, there should be enough resources to be chosen from. Enough backup resources therefore should be selected and prepared for unexpected situations. Adaptation of teaching/learning resources when giving lessons should also be conducted swiftly and appropriately concerning their content and order. As a result, flexibility should be a criterion teachers bear in mind when selecting teaching/learning resources.

Being flexible requires the teacher to know well of the students’ different situations and to have some prior teaching experience to know what to do under different unexpected conditions.

**5.4.2 Teaching processes and analysis of the second sample lesson**

In this lesson, family members that were taught last term were reviewed and then linked with greetings to make it “greetings to family members”. After several examples, students learned the rules of putting these two parts together and were able to link the two parts by themselves. Activities for practice were carried out with different resources. Processes of the lesson are demonstrated below:

Chinese greetings were not easy for students to learn, especially the word “sorry” which is “对不起 (duì bù qǐ)” and “it’s ok” which is “没关系 (méi guān xi)”. A few students put up their hands to try to say them, but failed to say it correctly. After that, I found some students stop putting up hands. Seeing this, I played an interesting video to let students say all the greetings with it. Students all followed the video and said it out loud and happily. (Reflection journal, 25/02/2014, term 1 week 05)

The teaching resources in the above case were difficult for the students, which to some extent discouraged them so that they stopped trying. To avoid such problems, teachers should select appropriate resources for students’ learning levels, since “the first and most
important factor to be considered is the learners” (Howard & Major, 2005, p. 103). Apart from learning levels, learners’ other relevant situations should also be considered, including interests, learning styles, gender or even heights. What’s more, the types of resources used are important for the input of new content, especially difficult ones. Interesting videos as resources welcomed by students can function better in this regard. Therefore, selecting students-appropriate and appealing teaching/learning resources would be a useful approach to making students learn joyfully and productively.

However, making resources students-appropriate and attractive sometimes can be a tricky task:

In the lesson for Year 5/6, I reviewed how to say Chinese family members they had learned last term and greetings they had learned last time. Then I put family members and greetings together to let them say longer sentences like “hello, dad” which is “你好，爸爸 (nǐ hǎo, bà ba)” ; “thank you, mom” which is “谢谢, 妈妈 (xiè xie, mà ma)” ; “good morning, little brother” which is “早上好, 弟弟 (zǎo shàng hǎo, dì di)”, etc. I said English sentences first and asked them to say the corresponding Chinese sentences. Students felt challenged and most of them put up their hands to say the sentences in Chinese. When they said the long sentence correctly, some of them showed it off to their friends saying “see?” and some of them said “yeah” while doing a triumph gesture. (Reflection journal, 26/02/2014, term 1 week 05)

This piece of data uncovers that the students felt a sense of achievement when they accomplished the challenging learning tasks. They thought they had really learned much and were good at it, thus became more eager to learn it. In this sense, when selecting resources, making it a little bit challenging for students would be a good approach to getting them interested and attracted. Students like challenges, because when they find that they can accomplish such difficult tasks, they would obtain a feeling of achievement, which makes them feel like continuing learning. An interview with Teacher E also indicates that it is better to select teaching resources that are a little bit difficult for students: “I guess you should consider the level of the students. However, sometimes, you
should give them something more difficult to deal with” (Teacher E, 26/05/2014). Her comments indicate the importance of selecting resources that are a little bit beyond students’ learning levels, which may provide more room for students’ further improvement.

The difficult part of setting appropriate challenges for students is that these challenges could not be too difficult or too easy. If they are too difficult, it may brush the students off by making them discouraged. If they are too easy, there would be no challenge for students at all and they would feel bored easily. Thus, either way makes students disinterested and disengaged. Therefore, staying in the middle, in other words, be moderate and make it appropriately challenging for different students would be ideal for keeping different students attracted.

In other words, while making teaching resources students-appropriate and attractive, teachers need to make it challenging for students in an appropriate way, in which, students can learn more joyfully and efficiently.

5.4.3 Teaching processes and analysis of the third sample lesson

This lesson involved revision and the introduction to China. After revision applying various resources, the researcher imparted knowledge of China to students, including some characteristics and famous things of China. In language aspect, pronunciation and characters of “China” were taught. Famous things in Chinese such as the Great Wall, panda, Shanghai, Beijing and Yangzi River were also introduced. In culture aspect, different from the lesson for Kindergarten to Year 3 students, the researcher provided Year 4-7 students with basic Chinese geography knowledge including the Great Wall, Shanghai, Beijing, and some Chinese history such as the relationship between the mainland China and the special district of Taiwan. These cultures were more difficult compared with those for Year K-3 students. Resources were selected for activities and games in this lesson.
The lessons for Kindergarten to Year 3 students and Year 4 to Year 7 students are both stated and analysed to make a comparison to study the situations of teaching/learning resource selection across grades and within the same grade. Criteria are intended to be developed further.

Various resources were selected for different grades below and different contents were taught to students of different ages:

According to the ages of the students, I prepared two videos for different classes. These two videos were both the introduction to China. One video was easier while the other was more difficult. The difficult video conveyed more information and had faster speaking speed. The students of Kindergarten to Year 3 watched the easier one while Years 4-6 watched the difficult one. After watching it, the younger students and the older students could both answer the questions correctly. (Reflection journal, 11/03/2014, term 1 week 07)

More Chinese culture and things for thinking and discussion were prepared for Year 4-7 students, such as the history of Taiwan and the issue of Mount Everest between China and Nepal. Some students even asked interesting questions like “is the passport for Chinese people to
As illustrated, for students of different grades, different resources were selected to facilitate learning. Usually, more difficult resources are chosen for older students; whereas for younger students, the content of resources would be easier and more interesting, because little children of Kindergarten do not have higher cognitive level as Year 4–7 students do, and “videos were selected according to their length (short items being preferred), content relevance, complexity and the background knowledge required to process them cognitively” (Banegas, 2012, p. 401). In that light, easier and vivid resources like pictures may function better with Kindergarten children than complicated resources, especially resources involving cultures, which require higher cognitive levels and more intellectual thoughts. From the comparison across grades, we can discern that teachers should select different resources to give different students lessons, which should be appropriate for the students’ ages, cognitive levels and other learning situations. The index to judge whether the selected resources are appropriate for students should be the students’ reactions and learning results. In the above cases, the kindergarten children gave the teacher “the blank look” when they did not understand the content. In case the students’ reactions tell the teacher that the selected resources are not suitable for target students, teachers should be flexible and adapt resources at once according to students’ feedback. Therefore, flexibility is also important concerning resource selection both before and throughout the lessons:

The difficult video was too long for Year 5/6 students, because some students began to become impatient in the middle. They were looking down at the desk or looking elsewhere. Seeing this, I stopped the video
in the middle where I thought appropriate. It gave students enough input and allowed students to have a general idea of China. After that, I asked students to tell me facts about China in the video. They told me that the population of China is around 1.3 billion; there are four major religion groups in China; and the length of the Great Wall is 4000 miles, which were all correct. (Reflection journal, 12/03/2014, term 1 week 07)

For Year 5/6 students, watching the whole video would be unnecessary and impossible, because they had enough input for questions and did not have attention span long enough for the whole video. According to their reactions, the video was cut short to exercise flexibility which facilitated accomplishing teaching/learning targets. As in the sample lesson, close attention should be paid to the students and the selected teaching/learning resources in class. The adjustment should be carried out whenever appropriate to make sure the students could acquire the targeted knowledge and accomplish assigned tasks.

To achieve flexibility in resource selection both pre-lesson and in-lesson, teachers should know the students well to have correct prediction of whether the selected resources will work properly before the lessons. At the same time, teachers should be observant of what adaptation should be made to improve the selected resources during the lessons. In addition, teachers should be experienced enough to know what to do to achieve flexibility in those two aspects.

The Australian curriculum for Chinese language also specifies different resources for students with different ages and cognitive levels. According to Australian Curriculum: Languages, Chinese (Australian Curriculum, Assessment and Reporting Authority, 2013), the children from Kindergarten to Year 2 should have the teaching/learning resources of:

a variety of texts and text modes, including picture and caption books, songs, cartoons and movies. They will be given opportunities to hear the differences in the way Chinese sounds from stimulus material such as stories and readings, multimedia resources and Internet sites. (Australian Curriculum, Assessment and Reporting Authority, 2013, p. 5)
Resources such as pictures, songs and cartoons are adopted for Kindergarten to Year 2 students, which are comparatively easier and require lower cognitive levels to approach. Besides, these resources are more interesting thus are suitable for small children who can easily become bored and distracted.

On the other hand, the curriculum indicates that the teaching/learning resources for Year 5 and Year 6 students should include:

- Print and online news and media, blogs, advertisements, catalogues, popular music and drama. Texts presented in characters are generally glossed in Pinyin. Students write in characters to correspond with others in letters and use Pinyin input systems to generate a variety of texts in digital format. (Australian Curriculum, Assessment and Reporting Authority, 2013, p. 20)

The resources for Year 5 and Year 6 are more challenging, including news, blogs and drama, which contain more difficult content and require higher cognitive levels to process and internalise. Likewise, these resources contain interesting and authentic content that can attract students and facilitate their learning.

As seen from the curriculum, the teaching/learning resources for students with different ages vary considering their different learning abilities and cognitive levels. The older the students are, the more difficult Chinese they are supposed to learn. Accordingly, resource selections would be different to serve different students and teaching/learning purposes. Consequently, when selecting resources, teachers should consider their “appropriateness for the children or students” (The State of South Australia, Department of Education and Children’s Services, 2004, p. 11), concerning ages, cognitive levels and any other related aspect.

As an official document, the curriculum carries guidelines and frameworks for teaching and learning, and will “significantly impact on decisions about teaching materials”
(Howard & Major, 2005, p. 103). In this way, teaching/learning resource selection should be “directly related to a preschool’s or school’s curriculum policy and program, based on the department’s framework of standards and accountability” (The State of South Australia, Department of Education and Children’s Services, 2004, p. 10). Therefore, “whatever the curriculum, it is the teacher’s responsibility to ensure that the goals and objectives of the overarching curriculum are kept close at hand” (Howard & Major, 2005, p. 103). Resources should be contextualized to the corresponding curriculum and “curriculum fit” (“learning resources,” 2014) should be listed as a criterion for effective resource selection.

5.4.4 Summary of resource selection criteria for Years 4-7

The three sample lessons for Years 4-7 indicate four criteria for teaching/learning resource selection.

The first criterion is that resource selection should be curriculum-appropriate; second, resource selection should be students-attractive; the third criterion is that when selecting resources, the teacher should make the resources students-appropriate; the fourth criterion is making resource selection flexible.

5.5 Conclusion

In this chapter, seven sample lessons were demonstrated and analysed in the light of developing criteria for effective teaching/learning resource selection. Different resources were selected in these lessons to maximise teaching effects and achieve teaching/learning goals. Basically, teaching/learning resource selection should be curriculum-appropriate. Moreover, resource selection should be students-attractive. Third, when selecting resources, students-attractiveness should not be the only index if it is at variance with other important factors. Fourth, resources should be selected according to students’
different situations. Fifth, resource selection should be flexible enough to approach different unexpected situations in teaching and learning.
Chapter 6 Resource Selection from Students’ Perspectives

6.1 Introduction

This chapter provides the analyses of the data collected from 48 students at two primary schools and one high school. These 48 students are from Kindergarten to Year 7 and the data concerning teaching/learning resource selection were collected to demonstrate how to select resources from students’ perspectives. Students were divided into four groups, namely, stage K/1 group (Kindergarten, Year 1, Year 2), stage 2 group (Year 3, Year 4), stage 3 group (Year 5, Year 6) and Year 7 group. Each group has 12 students.

For each student group, resource selections were analysed from two aspects: preferences for selected resources and effectiveness of resources. These two aspects focus on students’ attitudes toward different types of selected resources in Chinese lessons. They also attempt to unveil the reasons behind students’ attitudes.

The data are generally in the form of group interviews, observation, and documents including the curriculum, syllabus, policies, students’ feedback, lesson plans, and teaching/learning resources.

Nine resources were collected and analysed. Pictures, videos, whiteboard games, tracing Chinese characters, paper cutting, flash cards and colouring are the seven types of resources that have been selected and analysed in the sample lessons of Chapter 5. Songs and tests are two newly appearing yet commonly used resources here.
6.2 Stage K/1

Twelve Stage K/1 students include Kindergarten, Year 1 and Year 2 students, who are the youngest among all the students. The cognitive level of stage K/1 students is the lowest among all the sample students in this research. The resources selected for them were relatively easier compared with those for other stage students.

6.2.1 Favoured resources and the reasons

Stage K/1 students’ preferences for resources are illustrated in Table 6.1 below. The resources have been arranged according to the figures of students’ preferences in descending order.

Table 6.1 Preferences for resources from stage K/1 students’ perspectives

<table>
<thead>
<tr>
<th>Resources for stage K/1</th>
<th>Preferences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whiteboard games</td>
<td>8.92</td>
</tr>
<tr>
<td>Pictures</td>
<td>8.75</td>
</tr>
<tr>
<td>Colouring</td>
<td>8.67</td>
</tr>
<tr>
<td>Videos</td>
<td>7.50</td>
</tr>
<tr>
<td>Songs</td>
<td>7.17</td>
</tr>
<tr>
<td>Tracing Chinese characters</td>
<td>7.08</td>
</tr>
<tr>
<td>Flash cards</td>
<td>7.00</td>
</tr>
<tr>
<td>Paper cutting</td>
<td>6.42</td>
</tr>
<tr>
<td>Tests</td>
<td>5.83</td>
</tr>
</tbody>
</table>

Number of students: 12,

Rating scale: 10= strongly positive, 1= strongly negative. The other eight numbers in between indicate different levels from strongly positive to strongly negative, as shown by the continuum below:

Strongly positive 10 9 8 7 6 5 4 3 2 1 strongly negative
Whiteboard games were the top teaching resources stage K/1 students preferred according to the figures in Table 6.1, evaluated with 8.92 points out of 10, which indicates that whiteboard games are most welcomed. Pictures ranked second with 8.75 points and colouring placed third with 8.67 points.

Tests were shown as the least welcomed teaching/learning resources with only 5.83 points. Paper cutting was the second most unpopular resource with only 6.42 points. Flash cards were the third unpopular resource with 7.00 points.

The most favoured resources are comparatively easy and appealing ones that students can understand, approach and enjoy by themselves, such as games and pictures. While the most disliked ones are more challenging and require more intellectual thinking, such as tests and paper cutting. During paper cutting, “stage K/1 students asked for teachers’ help frequently in terms of how to use scissors and how to cut on the line” (Reflection journal, 13/03/2014, term 2 week 03). How to cut properly alone loomed as a problem for stage K/1 students, not to mention the most challenging and monotonous resource – tests – which are designed to challenge and assess students.

When asked why they preferred a particular resource, stage K/1 students provided reasons from their perspectives:

Table 6.2 Reasons for preferences from stage K/1 students’ perspectives

<table>
<thead>
<tr>
<th>Reasons for preferences</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>It’s fun</td>
<td>9/12</td>
</tr>
<tr>
<td>It’s easier</td>
<td>2/12</td>
</tr>
<tr>
<td>It helps to learn</td>
<td>1/12</td>
</tr>
</tbody>
</table>

Stage K/1 students preferred whiteboard games or pictures out of three reasons as shown in the table above. “Fun” was confirmed as the top reason, indicating the students’ need to
be interested in the resources. Games and pictures, as the carriers of joy, provide students with abundant chances of learning while playing. Therefore, when teachers are selecting teaching/learning resources, considering students’ interests and attracting them are essential. Howard and Major (2005) also indicate that “English language teaching materials should be attractive” (p. 106) to make students learn more efficiently. Chinese language teaching materials should also be attractive, the same as other language teaching materials. Thus, being attractive in students’ eyes should be adopted as a criterion for resource selection in Chinese teaching.

6.2.2 Effectiveness of teaching/learning resources

The effectiveness of selected resources is an important index to tell whether teaching/learning resource selection has been carried out successfully. In Table 6.3, the effectiveness of different selected resources is investigated from students’ perspectives. The order of the resources has been arranged according to the figures in decreasing order.

Table 6.3 Effect of each resource from stage K/1 students’ perspectives

<table>
<thead>
<tr>
<th>Resources for stage K/1</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Videos</td>
<td>8.50</td>
</tr>
<tr>
<td>Songs</td>
<td>8.33</td>
</tr>
<tr>
<td>Whiteboard games</td>
<td>8.25</td>
</tr>
<tr>
<td>Pictures</td>
<td>8.17</td>
</tr>
<tr>
<td>Tracing Chinese characters</td>
<td>7.33</td>
</tr>
<tr>
<td>Colouring</td>
<td>7.33</td>
</tr>
<tr>
<td>Paper cutting</td>
<td>6.25</td>
</tr>
<tr>
<td>Tests</td>
<td>5.92</td>
</tr>
<tr>
<td>Flash cards</td>
<td>5.83</td>
</tr>
</tbody>
</table>

Number of students: 12,

Rating scale:

Strongly positive  10  9  8  7  6  5  4  3  2  1  strongly negative
Table 6.3 reveals that videos were the most effective resources that stage K/1 students think could help them learn, receiving 8.52 points out of 10. Songs came second with 8.33 points and whiteboard games took third place with 8.25 points.

On the other hand, flash cards were the least effective resource, with only 5.83 points. Tests were regarded as the second most ineffective teaching resource with 5.92 points, and paper cutting was third most ineffective resource with 6.25 points.

Students regarded some resources effective while others ineffective, and the gap between the effective ones and ineffective ones is obvious. The effectiveness of resources may vary according to students’ ages, cognitive levels and other relevant factors in learning. For low-achievement students, they may find easier resources effective, whereas for top students, they may regard challenging resources more engaging and effective.

6.2.3 Comparisons between preferences and effectiveness

In Figure 6.1 below, Table 6.1 (on the left side) and Table 6.3 (on the right side) are put together and a match for the three most favoured teaching/learning resources and the three least favoured resources is made to carry out a comparison.
From the comparison of preferences with the corresponding effects of different resources, it can be inferred that the most attractive resources are not necessarily the most effective ones.

Stage K/1 students liked whiteboard games most, while at the same time, they regarded them as the third most effective resource. The result is similar with pictures, the second most favoured yet fourth most effective resource. Colouring as the third most preferred resource only ranked the sixth in terms of effectiveness. In this way, whether teaching/learning resources can get students interested is not the sole index
for teachers to select resources. Undoubtedly, if students are interested in the selected resources, they will be more willing and better able to learn, which is also an important aspect teachers should consider when selecting resources.

On the other hand, the three least favoured resources are basically the three least effective resources from stage K/1 students’ perspectives. Stage K/1 students disliked tests most, and tests were ranked as the second least effective resource according to the figures. They considered tests both disliked and ineffective. However, “assessment for learning is an essential and integrated part of teaching and learning” (Board of Studies NSW, 2003, p. 67), which is indispensable methods of assessing students according to the Australian Curriculum, Assessment and Reporting Authority (2013). The curriculum, as an official government document “outlines the goals and objectives for the learners and the course of study” (Howard & Major, 2005, p. 103), and should be considered first when selecting teaching/learning resources.

In a nutshell, when selecting resources, curricula as official guidelines should be the priority. Teachers should also select comparatively attractive resources for students, and at the same time, the effects of the resources should be guaranteed in an appropriate way to ensure the accomplishment of teaching/learning goals.

6.3 Stage 2

Stage 2 students are older than stage K/1 students, yet younger than Year 5, Year 6 and Year 7 students. The cognitive level of stage 2 students is in the middle among all the sample students in this chapter. They can provide more insight into the issue of resource selection.
6.3.1 Favoured resources and the reasons

Table 6.4 illustrates stage 2 students’ preferences concerning selected teaching/learning resources. The resources have been displayed in descending order.

Table 6.4 Preferences for resources from stage 2 students’ perspectives

<table>
<thead>
<tr>
<th>Resources for stage 2</th>
<th>Preferences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Videos</td>
<td>8.83</td>
</tr>
<tr>
<td>Paper cutting</td>
<td>8.75</td>
</tr>
<tr>
<td>Whiteboard games</td>
<td>8.17</td>
</tr>
<tr>
<td>Colouring</td>
<td>8.08</td>
</tr>
<tr>
<td>Pictures</td>
<td>7.33</td>
</tr>
<tr>
<td>Songs</td>
<td>6.92</td>
</tr>
<tr>
<td>Tracing Chinese characters</td>
<td>5.83</td>
</tr>
<tr>
<td>Flash cards</td>
<td>5.83</td>
</tr>
<tr>
<td>Tests</td>
<td>3.67</td>
</tr>
</tbody>
</table>

Number of students: 12,

Rating scale:

Strongly positive 10 9 8 7 6 5 4 3 2 1 strongly negative

Videos were the top resources stage 2 students prefer according to the figures in Table 6.4, with 8.83 points out of 10. Paper cutting came second with 8.75 points, and whiteboard games took third place with 8.17 points.

On the other hand, as shown in Table 6.4, tests were the least welcomed resources, followed by flash cards and tracing Chinese characters. Tests received only 3.67 points, and flash cards and tracing Chinese characters each received 5.83. It should be noted that tests were the only teaching resource that fell below 5 points.
Videos were preferred by stage 2 students who have enough background knowledge and higher cognitive levels to understand, enjoy and gain information from them. Using scissors in cutting did not loom as an obstacle for them, thereby paper cutting provided sufficient enjoyment for them. Tests may be too challenging and dull for stage 2 students as well, because they are designed for assessment, which are basically questions. Their reasons for preferences are demonstrated in Table 6.5:

**Table 6.5 Reasons for preferences from stage 2 students’ perspectives**

<table>
<thead>
<tr>
<th>Reasons</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>It’s fun</td>
<td>7/12</td>
</tr>
<tr>
<td>It’s easier</td>
<td>3/12</td>
</tr>
<tr>
<td>It helps to remember</td>
<td>2/12</td>
</tr>
</tbody>
</table>

Similarly, most stage 2 students offered “it is fun” as the main reason, and others stated “it helps me to remember” or “it’s easier. “Fun” as the most common reason indicates their need to be attracted by interesting resources such as videos and paper cutting. If they are attracted, they can become more engaged and learn better. Therefore, when teachers are selecting teaching/learning resources, considering students’ need to be interested is crucial.

Moreover, for students who said “it’s easier” or “it helps to remember”, their needs to learn more easily and efficiently should also be considered. Especially for low-achievement students, making resources easy enough to facilitate their learning is critical.

In this light, different students have diverse needs which may concern joy-seeking or knowledge-acquiring, and their preferences may vary correspondingly. Thus, the content of the resources should be “derived from the learners’ life situations, needs and interests” (Rashidi & Safari, 2010, p. 255). Consequently, teaching/learning
resource selection should be contextualised with learners’ situations; in other words, they should be students-appropriate in various necessary aspects.

### 6.3.2 Effectiveness of teaching/learning resources

The effects of selected resources indicate to what extent teaching goals are realized, thus can be an important index to tell whether resource selection has been carried out successfully. In Table 6.6 below, the effects of different selected resources are seen from students’ perspectives.

**Table 6.6 Effect of each resource from stage 2 students’ perspectives**

<table>
<thead>
<tr>
<th>Resources for stage 2</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whiteboard games</td>
<td>8.58</td>
</tr>
<tr>
<td>Videos</td>
<td>8.33</td>
</tr>
<tr>
<td>Songs</td>
<td>7.58</td>
</tr>
<tr>
<td>Pictures</td>
<td>7.08</td>
</tr>
<tr>
<td>Tracing Chinese characters</td>
<td>6.75</td>
</tr>
<tr>
<td>Tests</td>
<td>6.42</td>
</tr>
<tr>
<td>Colouring</td>
<td>5.83</td>
</tr>
<tr>
<td>Paper cutting</td>
<td>5.75</td>
</tr>
<tr>
<td>Flash cards</td>
<td>5.50</td>
</tr>
</tbody>
</table>

Number of students: 12,

Rating scale:

| Strongly positive | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | strongly negative |

Whiteboard games were illustrated as the most effective resources as regarded by stage 2 students receiving 8.58 points out of 10. They involve more dynamic and
interactive elements which engage students while learning. Videos came second with 8.33 points and songs third with 7.58 points.

On the other hand, as shown in Table 6.6, flash cards are considered the least effective resources with only 5.50 points. As a mere presenting means, flash cards involve repetition and lack interaction, which may bore students. Paper cutting was the second most ineffective resource with 5.75 points. Colouring came next with 5.83 points.

In regard to the effectiveness of resources, the results are influenced by “characteristics of the evaluating students” (Stehle, Spinath & Kadmon, 2012, p. 889), which in turn suggests the differences in students’ personalities and other aspects. These differences justify the variety of resource selections to make Chinese learnable for various students.

6.3.3 Comparisons between preferences and effectiveness

A comparison is exercised in Figure 6.2 between stage 2 students’ preferences and the effectiveness of the resources:
Figure 6.2 Comparisons between preferences and effects (stage 2 students)

<table>
<thead>
<tr>
<th>Resources for stage 2</th>
<th>Preferences</th>
<th>Resources for stage 2</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Videos</td>
<td>8.83</td>
<td>Whiteboard games</td>
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<tr>
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<td>8.75</td>
<td>Videos</td>
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<td>Whiteboard games</td>
<td>8.17</td>
<td>Songs</td>
<td>7.58</td>
</tr>
<tr>
<td>Colouring</td>
<td>8.08</td>
<td>Pictures</td>
<td>7.08</td>
</tr>
<tr>
<td>Pictures</td>
<td>7.33</td>
<td>Tracing characters</td>
<td>6.75</td>
</tr>
<tr>
<td>Songs</td>
<td>6.92</td>
<td>Tests</td>
<td>6.42</td>
</tr>
<tr>
<td>Tracing characters</td>
<td>5.83</td>
<td>Colouring</td>
<td>5.83</td>
</tr>
<tr>
<td>Flash cards</td>
<td>5.83</td>
<td>Paper cutting</td>
<td>5.75</td>
</tr>
<tr>
<td>Tests</td>
<td>3.67</td>
<td>Flash cards</td>
<td>5.50</td>
</tr>
</tbody>
</table>

Figure 6.2 highlights the conflict between stage 2 students’ preferences and the effectiveness of resources. Their second most favoured resource, paper cutting, was regarded the second least effective according to the figures. This suggests that preferred teaching/learning resources may not be effective resources from students’ perspectives. When students prefer a resource, attractiveness is the main reason, whereas in terms of effectiveness, teaching/learning results become the main index. Since the purpose of selecting students-attractive resources is achieving better teaching/learning results, when selecting resources, both students’ interests and the effectiveness of resources should be taken into consideration.
Moreover, stage 2 students disliked tests the most, yet tests ranked number 6 when in their teaching effects – even higher than paper cutting. A dilemma involving students’ interests and the effectiveness of resources emerges. According to Australian Curriculum, Assessment and Reporting Authority (2013), tests are necessary for students in learning Chinese. The State of South Australia, Department of Education and Children’s Services (2004) also indicates that teaching/learning resource selection should “support an inclusive curriculum” (p. 10) and be “directly related to a preschool’s or school’s curriculum policy and program, based on the department’s framework of standards and accountability” (p. 10). Although students will be more devoted to learning if they are interested in the resources, the curriculum and syllabus as government documents should be given the priority.

In conclusion, when selecting resources, teachers should make resources curriculum-appropriate, students-appropriate, and students-attractive. At the same time, teachers should consider the effects of the resources in a proper way.

6.4 Stage 3

Stage 3 students include are the oldest among all the primary school students. Their cognitive levels are higher than those of stage 2 or stage K/1 students, which means that they are more mature and insightful when approaching the issue.

6.4.1 Favoured resources and the reasons

Table 6.7 below illustrates stage 3 students’ preferences concerning selected resources and the resources have been arranged in descending order.
Table 6.7 Preferences for resources from stage 3 students’ perspectives

<table>
<thead>
<tr>
<th>Resources for stage 3</th>
<th>Preferences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Videos</td>
<td>9.17</td>
</tr>
<tr>
<td>Whiteboard games</td>
<td>8.75</td>
</tr>
<tr>
<td>Colouring</td>
<td>8.58</td>
</tr>
<tr>
<td>Pictures</td>
<td>7.58</td>
</tr>
<tr>
<td>Paper cutting</td>
<td>7.08</td>
</tr>
<tr>
<td>Songs</td>
<td>6.50</td>
</tr>
<tr>
<td>Flash cards</td>
<td>6.33</td>
</tr>
<tr>
<td>Tracing Chinese characters</td>
<td>6.00</td>
</tr>
<tr>
<td>Tests</td>
<td>5.50</td>
</tr>
</tbody>
</table>

Number of students: 12,

Rating scale:

Strongly positive 10  9  8  7  6  5  4  3  2  1  strongly negative

Videos were the top resources stage 3 students prefer according to the figures, with 9.17 points out of 10, which is higher than the figure provided by stage 2 students. It reveals that videos are the most welcomed resources among them. Stage 3 students have higher cognitive levels which allow them to follow the videos, extract the knowledge and enjoy the brain-storming. Whiteboard games came second with 8.75 points and colouring took third place with 8.58 points. Both whiteboard games and colouring integrate multi-artistic elements and provide joy when learning, which may be the main reason for being favoured.

On the other hand, tests were the least welcomed resources with only 5.50 points. Little pleasure is embedded in them, which is somehow regarded as dull and distasteful. They are basically regarded as a boring and difficult tool for assessing learning. Tracing Chinese characters is the second most unpopular teaching resource with 6.00 points and flash cards are the third most unpopular with only 6.33 points.
The reasons for favouring certain resources are elaborated on in Table 6.8:

### Table 6.8 Reasons for preferences from stage 3 students’ perspectives

<table>
<thead>
<tr>
<th>Reasons for preferences</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>It’s fun</td>
<td>6/12</td>
</tr>
<tr>
<td>It’s easier</td>
<td>2/12</td>
</tr>
<tr>
<td>It helps to remember</td>
<td>3/12</td>
</tr>
<tr>
<td>It’s relaxing</td>
<td>1/12</td>
</tr>
</tbody>
</table>

Stage 3 students provided four reasons for their preferences. “Fun” was the top reason, which indicates that when they prefer a resource, they are actually attracted by it. Students are basically children who prefer enjoyable resources, which can thereby facilitate their learning and achieving specific goals. Therefore, when teachers are selecting resources, students’ interest should be an essential index.

For students who preferred resources with the reason “it’s easier” or “it helps to remember”, they have needs to learn more easily, which should also be borne in mind when choosing resources. Different students provided different reasons indicating different needs and situations. These needs and situations should be addressed adequately and appropriately. As indicated by The State of South Australia, Department of Education and Children’s Services (2004), one criterion of resource selection should concern its “appropriateness for the children or students” (p. 11). Thus, teaching/learning resource selection should be students-appropriate.

### 6.4.2 Effectiveness of teaching/learning resources

Stage 3 students’ opinions concerning resources’ effects are presented in Table 6.9, which have been ranked according to the figures in decreasing order.
Table 6.9 Effect of each resource from stage 3 students’ perspectives

<table>
<thead>
<tr>
<th>Resources for stage 3</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tracing Chinese characters</td>
<td>8.08</td>
</tr>
<tr>
<td>Videos</td>
<td>7.92</td>
</tr>
<tr>
<td>Songs</td>
<td>7.75</td>
</tr>
<tr>
<td>Whiteboard games</td>
<td>7.50</td>
</tr>
<tr>
<td>Pictures</td>
<td>6.67</td>
</tr>
<tr>
<td>Tests</td>
<td>6.17</td>
</tr>
<tr>
<td>Flash cards</td>
<td>5.92</td>
</tr>
<tr>
<td>Colouring</td>
<td>4.92</td>
</tr>
<tr>
<td>Paper cutting</td>
<td>4.83</td>
</tr>
</tbody>
</table>

Number of students: 12,
Rating scale:

Strongly positive 10 9 8 7 6 5 4 3 2 1 strongly negative

Tracing Chinese characters was the most effective resource, with 8.08 points out of 10. Chinese characters carry abundant information of Chinese written system and are typically Chinese, which allow students to be exposed to adequate knowledge. Videos came second with 7.92 points and songs third with 7.75 points.

On the other hand, paper cutting was the least effective resource with only 4.83 points. There is little knowledge in paper cutting except for some cultural information. Colouring was regarded as the second most ineffective resource with 4.92 points and flash cards were next with only 5.92 points.

Students’ different choices of favoured and disfavoured resources indicate the complexity of student body and teaching/learning conditions. To choose effective resources, teachers not only need to know the students’ personalities and situations, but also need to select and adjust them according to real feedback and reactions.
6.4.3 Comparisons between preferences and effectiveness

In Figure 6.3, a match for the three most favoured resources and the three least favoured resources is made to conduct a comparison between preferences and effectiveness.

Figure 6.3 Comparisons between preferences and effects (stage 3 students)

<table>
<thead>
<tr>
<th>Resources for stage 3</th>
<th>Preferences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Videos</td>
<td>9.17</td>
</tr>
<tr>
<td>Whiteboard games</td>
<td>8.75</td>
</tr>
<tr>
<td>Colouring</td>
<td>8.58</td>
</tr>
<tr>
<td>Pictures</td>
<td>7.58</td>
</tr>
<tr>
<td>Paper cutting</td>
<td>7.08</td>
</tr>
<tr>
<td>Songs</td>
<td>6.50</td>
</tr>
<tr>
<td>Flash cards</td>
<td>6.33</td>
</tr>
<tr>
<td>Tracing characters</td>
<td>6.00</td>
</tr>
<tr>
<td>Tests</td>
<td>5.50</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Resources for stage 3</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tracing characters</td>
<td>8.08</td>
</tr>
<tr>
<td>Videos</td>
<td>7.92</td>
</tr>
<tr>
<td>Songs</td>
<td>7.75</td>
</tr>
<tr>
<td>Whiteboard games</td>
<td>7.50</td>
</tr>
<tr>
<td>Pictures</td>
<td>6.67</td>
</tr>
<tr>
<td>Tests</td>
<td>6.17</td>
</tr>
<tr>
<td>Flash cards</td>
<td>5.92</td>
</tr>
<tr>
<td>Colouring</td>
<td>4.92</td>
</tr>
<tr>
<td>Paper cutting</td>
<td>4.83</td>
</tr>
</tbody>
</table>

From the presentation of the comparison, stage 3 students’ preferences for videos and whiteboard games are displayed. The preferences were somehow in consistent with the resources’ effectiveness, with both ranked relatively high in Figure 6.3. In this case, the students’ interests and the effectiveness collaborate to promote teaching/learning results. However, their third favoured resource, colouring, was regarded as the second least effective resource, which demonstrates a conflict between interests and effects. Considering that, when selecting resources, teachers should not only satisfy students’
interests, the effects of teaching resources should also be considered. A balance should be struck between interests and effectiveness.

Moreover, stage 3 students disliked tests most, yet tests ranked number 6 in terms of teaching effects, which is even higher than the third favoured resource, colouring. The conflict here is more conspicuous. Board of Studies NSW (2003) eliminates this conflict by stating that “assessment for learning in Chinese is designed to enhance teaching and improve learning” (p. 67) and it “gives students opportunities to produce the work that leads to development of their knowledge, understanding and skills” (Board of Studies NSW, 2003, p. 67), thus is indispensable in teaching/learning activities. Consequently, students’ interests should give way to the curriculum, and tests should not be left out when selecting resources.

The priority given to the curriculum does not dismiss the importance of considering students’ interests within the frameworks of the curriculum when selecting resources. If students are interested in the selected resources, they will be more interested in learning and more likely to learn better, which is also an important aspect teachers should take into consideration in resource selection.

In summary, when selecting teaching/learning resources, teachers should first consider their “consistency with department policies and guidelines” (The State of South Australia, Department of Education and Children’s Services, 2004, p. 11) including curricula and syllabi. They should also choose students-appropriate resources that “speak to learners” most pressing concerns and issues’ (Weinstein, 1999, p. 2). Moreover, teachers should select appealing resources for students, yet at the same time, assure the effectiveness of the selected resources in a balanced way.
6.5 Year 7

Year 7 students are the oldest of all the sample students. Hence, their cognitive level is the highest and their perspectives on resource selection can be more insightful and credible than those of younger students. Teaching/learning resources selected for them are more difficult compared with those for other students.

6.5.1 Favoured resources and the reasons

Table 6.10 illustrates Year 7 students’ preferences for selected resources, which have been displayed in descending order according to the figures.

**Table 6.10 Preferences for resources from Year 7 students’ perspectives**

<table>
<thead>
<tr>
<th>Resources for Year 7</th>
<th>Preferences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Videos</td>
<td>9.25</td>
</tr>
<tr>
<td>Whiteboard games</td>
<td>8.83</td>
</tr>
<tr>
<td>Paper cutting</td>
<td>8.33</td>
</tr>
<tr>
<td>Colouring</td>
<td>8.25</td>
</tr>
<tr>
<td>Pictures</td>
<td>7.42</td>
</tr>
<tr>
<td>Flash cards</td>
<td>6.67</td>
</tr>
<tr>
<td>Songs</td>
<td>6.42</td>
</tr>
<tr>
<td>Tracing Chinese characters</td>
<td>6.33</td>
</tr>
<tr>
<td>Tests</td>
<td>4.83</td>
</tr>
</tbody>
</table>

Number of students: 12,

Rating scale:

Strongly positive 10 9 8 7 6 5 4 3 2 1 strongly negative

Similarly, in Table 6.10, videos received a high mark of 9.25 making them the most preferred resources by Year 7 students, which carry more knowledge and require more
prior knowledge to process and enjoy. Whiteboard games came second with 8.83 points and paper cutting third with 8.33 points.

Nevertheless, tests were still the least welcomed as a tool of assessing learning and a part of teaching policy. They only got 4.83 points which was below 5. Tracing Chinese characters is the second most disfavoured resource with 6.33 points and flash cards are the third most disfavoured with only 6.42 points.

When asked why they preferred particular resources, a majority of students remarked that “it is fun” or “it helps to learn”, and a few students said “it helps me to remember” or “it is easier”. Some students offered more than one reason, which is shown in Table 6.11:

Table 6.11 Reasons for preferences from Year 7 students’ perspectives

<table>
<thead>
<tr>
<th>Reasons for preferences — Year 7 students</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>It’s fun</td>
<td>7/12</td>
</tr>
<tr>
<td>It’s easier</td>
<td>2/12</td>
</tr>
<tr>
<td>It helps to remember</td>
<td>3/12</td>
</tr>
<tr>
<td>It helps to learn</td>
<td>7/12</td>
</tr>
</tbody>
</table>

“Fun” and “helps to learn” were the top reasons provided by Year 7 students, which indicates that students preferred to learn in a merrier and productive way regarding selected resources. If they are interested in the resources, they will learn more spontaneously and efficiently, which promote the productivity in learning. Consequently, when teachers are selecting resources, identifying students’ interests and selecting joyful resources are major concerns.

The different reasons offered by students reflect their own situations, which may include their personalities, backgrounds, learning abilities, hobbies and gender. The complexity of students’ reasons indicates that different students have various needs which if satisfied
accordingly, may impair learning. In this way, being students-appropriate should be adopted as a criterion of resource selection.

6.5.2 Effectiveness of teaching/learning resources

In Table 6.12, Year 7 students provide opinions for the effectiveness of the selected resources:

Table 6.12 Effect of each resource from Year 7 students’ perspectives

<table>
<thead>
<tr>
<th>Resources for Year 7</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Videos</td>
<td>7.67</td>
</tr>
<tr>
<td>Whiteboard games</td>
<td>7.50</td>
</tr>
<tr>
<td>Songs</td>
<td>6.75</td>
</tr>
<tr>
<td>Colouring</td>
<td>6.17</td>
</tr>
<tr>
<td>Tests</td>
<td>6.08</td>
</tr>
<tr>
<td>Pictures</td>
<td>5.92</td>
</tr>
<tr>
<td>Tracing Chinese characters</td>
<td>5.25</td>
</tr>
<tr>
<td>Flash cards</td>
<td>4.58</td>
</tr>
<tr>
<td>Paper cutting</td>
<td>3.83</td>
</tr>
</tbody>
</table>

Number of students: 12,

Rating scale:

Strongly positive 10 9 8 7 6 5 4 3 2 1 strongly negative

Again, videos were the most effective resources students think could help them in learning. It received 7.67 points out of 10. Year 7 students as the oldest sample students with highest cognitive levels regarded videos most beneficial in learning for their dynamic forms and abundant information. Whiteboard games came second with 7.50 points and songs took the third place with 6.75 points.
As shown in Table 6.12, paper cutting was the least effective resource with only 3.83 points. Flash cards were regarded as the second most ineffective resource with 4.58 points. Tracing Chinese characters was the third ineffective teaching resource with 5.25 points.

Videos, whiteboard games and songs were regarded as the most effective resources in teaching/learning. These resources contain more knowledge and intellectual challenges, which are presented in an interactive and dynamic way. For Year 7 students with the highest cognitive levels, knowledge, challenges, interaction and vividness in these resources triggered their curiosity and engaged them in learning. On the other hand, although paper cutting is interesting and engaging, they are not directly related to knowledge input and intellectual interactions. Flash cards as methods of presenting knowledge do not involve much interaction, and tracing Chinese characters as a kind of drill lacks interaction and attraction. Consequently, these three resources were regarded comparatively ineffective.

6.5.3 Comparisons between preferences and effectiveness

In Figure 6.4, Table 6.10 and Table 6.12 are put together and a match for the three most favoured teaching/learning resources and the three least favoured resources is made.
It is interesting to notice that videos and whiteboard games as two most favoured teaching/learning resources, also ranked top 1 and top 2 in terms of teaching effects. For those two resources, students’ interests are consistent with the effects. However, when it comes to their third favourite resource – paper cutting – students regarded it as the least effective resource. Paper cutting is interesting and attractive, yet it does not contain enough knowledge and is considered not so beneficial in learning. The consistence and discrepancy between preferences and effectiveness demonstrate that Year 7 students with higher cognitive levels made more rational choices regarding effectiveness of resources. Their views are more objective and reliable. The consistence and discrepancy also show that interests and functions can be at variance or go hand in hand. In this way, when
selecting resources, teachers should satisfy both students’ interests and the resources’ effectiveness.

Tests, the most disfavoured resource, ranked fifth in terms of teaching effects. It again shows that students’ interest may not be consistent with teaching/learning resources’ effects. According to the Australian Curriculum: Languages, Chinese (Australian Curriculum, Assessment and Reporting Authority, 2013), tests are necessary for students in learning Chinese, and “assessment against standards provides opportunities for all learners to achieve their best” (Board of Studies, 2003, p. 68). Given the guidelines and requirements of the curriculum and syllabus, tests should be adopted when selecting resources.

To sum up, when selecting teaching/learning resources, teachers should first consider the requirements of the curriculum in respect to resource selection. Making resource selection students-appropriate should be adopted as another criterion. Third, teachers should make sure students are interested in the selected resources, yet at the same time guarantee the effectiveness of the selected resources in a balanced way.

6.6 Comparing different groups concerning preferences for resources

Table 6.13 provides a comparison between different grades in respect to their preferences for different teaching/learning resources. Each resource has a total mark to express students’ preferences in general.
Table 6.13 Preferences for teaching/learning resources (different grades)

<table>
<thead>
<tr>
<th>Resources</th>
<th>Preferences</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stage K/1</td>
</tr>
<tr>
<td>1  Pictures</td>
<td>8.75</td>
</tr>
<tr>
<td>2  Videos</td>
<td>7.50</td>
</tr>
<tr>
<td>3  Whiteboard games</td>
<td>8.92</td>
</tr>
<tr>
<td>4  Tracing Chinese characters</td>
<td>7.08</td>
</tr>
<tr>
<td>5  Songs</td>
<td>7.17</td>
</tr>
<tr>
<td>6  Paper cutting</td>
<td>6.42</td>
</tr>
<tr>
<td>7  Flash cards</td>
<td>7.00</td>
</tr>
<tr>
<td>8  Colouring</td>
<td>8.67</td>
</tr>
<tr>
<td>9  Tests</td>
<td>5.83</td>
</tr>
</tbody>
</table>

Number of students: 48,

Rating scale:

Strongly positive 10 9 8 7 6 5 4 3 2 1 strongly negative

The table above shows that younger students, such as stage K/1 students, prefer pictures more than older students do. Pictures as resources are more vivid; have fewer words; and are easier to understand:

The students in kindergarten did not have much input of Chinese culture when I gave the lesson: “introduction to China”. They are too young to understand complicated culture, and even some common words such as “choose” or “dialogue” were new to them. Whenever I came to Chinese culture, they looked at me with puzzled eyes. Hence, I skipped most cultural parts, and just taught them some new words, such as how to say “China” and how to say “panda”. When they saw the pictures of lovely pandas, they really liked them and repeated the word happily and loudly. (Reflection journal, 11/03/2014, term 1 week 07)
This piece of reflection presents kindergarten children’s different reactions toward pictures and cultures, and thereby reflects that kindergarten children had less prior knowledge to make connections, understand and internalise difficult new knowledge (Cummins, 2008). They didn’t even know enough vocabulary of their mother tongue, let alone other countries’ culture. The language which should have been a tool to facilitate learning became an obstacle for them. Little children’s cognitive levels are lower compared with those of older students, which hamper the processing of complicated and abstract information such as cultures. Therefore, resources like pictures which are simpler, vivid and concrete can function better with kindergarten students than complicated resources such as videos of cultures which require intellectual thoughts and higher cognitive levels.

On the contrary, Table 6.13 also indicates that the preference for videos increases with students’ ages. The older the students are, the more they favour videos. One reason, which is confirmed in the previous paragraph, is that videos as resources with more words and information require higher cognitive levels and more knowledge to understand. Therefore, this category only received 7.50 points from stage K/1 students, yet 9.25 points from Year 7 students, which is the highest mark from a single student group. The total mark for videos is the highest of all the teaching/learning resources, and close to the total mark of whiteboard games.

In regard with whiteboard games, almost all students like them because they are games and are, most of the time, “fun”, which is the main reason the students provided when asked why they preferred a particular resource. Students like learning while playing, which is a feature embedded in children’s nature. The marks for whiteboard games are all above 8 and it is the same situation with colouring. The total mark for colouring is 1.09 points lower than that for whiteboard games, yet it is still third highest overall.

Tests, the least popular resources, were given the lowest marks. Points for tests from student groups are all below 6, which indicate students’ consistence on the distaste for examinations. Tests are regarded as dull and difficult means integrated in
teaching/learning systems to access students’ learning, which turn students away. The total mark for tests is also the lowest, which is only 19.83 points, almost half of the total points for videos and whiteboard games.

Table 6.14 below provides the information of different students’ preferences from most favoured resources to least favoured resources.

**Table 6.14 Ranked preferences for teaching/learning resources (different grades)**

<table>
<thead>
<tr>
<th>Preferences for resources from most favoured to least favoured</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stage K/1</strong></td>
</tr>
<tr>
<td>Whiteboard games (8.92)</td>
</tr>
<tr>
<td>Pictures (8.75)</td>
</tr>
<tr>
<td>Videos (7.50)</td>
</tr>
<tr>
<td>Songs (7.17)</td>
</tr>
<tr>
<td>Tracing Chinese characters (7.08)</td>
</tr>
<tr>
<td>Flash cards (7.00)</td>
</tr>
<tr>
<td>Paper cutting (6.42)</td>
</tr>
<tr>
<td>Tests (5.83)</td>
</tr>
</tbody>
</table>

Number of students: 48,

Rating scale: 10= strongly positive, 1= strongly negative. The other eight numbers in between indicate different levels from strongly positive to strongly negative.
Whiteboard games are the most popular resource. It ranked first, third, second and second in each group’s data. Videos are not as popular with little children, but very popular with older students. Year 3 to Year 7 students all regarded it as the most favoured resource. Tests, on the other hand, were regarded as least favoured by all students from Kindergarten to Year 7.

The analyses of Table 6.13 and Table 6.14 illustrate that interesting and attractive resources like games or videos are more favoured by students when learning. Students as children and human beings prefer things that are interesting; therefore, games were preferred by most students. Tables 6.2, 6.5, 6.8 and 6.11 also indicate that if students prefer a particular resource, the main reason for their preference was “it is fun”. On the contrary, relatively boring teaching resources such as tests were disfavoured by all students, as shown in the tables. In this way, teachers should select resources that can trigger students’ interests.

Furthermore, students of different stages have different preferences according to their physical conditions, thinking patterns, and mentality, which are influenced by their ages, backgrounds and environments. Consequently, they showed interests in pictures in descending order and interests in videos in ascending order. They provided different reasons when asked the reasons for preferences. Since “individuals and their life experiences should be the starting point for education” (Rkeyashidi & Safari, 2011, p. 255), teachers should select teaching/learning resources according to students’ different situations. In other words, making resource selections students-appropriate is indispensable.

6.7 Conclusion

Chapter 6 investigated how to select teaching/learning resources from the perspectives of students. From the analysis the evidence in this and comparison with the evidence in previous chapters, the criteria that were initially developed were checked and improved.
The first criterion for teaching/learning resource selection is “curriculum fit” (“learning resources,” 2014). The curriculum which provides the guidelines and framework for teaching and learning activities is considered first. Second, teaching/learning resource selection should be students-appropriate; that is they must fit different students’ various learning situations. Third, resources should be selected according to students’ interests. The productive engagement of students with the selected resources should be considered when to enhance teaching/learning effects. Fourth, students’ interests should not be taken as the sole index when it goes against other important factors such as time management and teaching goals. A balanced point should be identified between their interests and other factors.
Chapter 7 Discussion and Conclusion of this Study

7.1 Introduction

Chapter 7 is the conclusion of this research. This study adopted the grounded theory approach to develop theories concerning how to select teaching/learning resources to make Chinese learnable while working with English-speaking learners.

This chapter first summarises previous chapters, offering an overview of what has been done in this research. The research questions are then answered based on the analysis of collected data: (1) What are teachers’ attitudes towards different teaching/learning resources and the reasons? (2) What are the difficulties teachers have while selecting resources and the solutions? (3) What are students’ attitudes towards the selected teaching/learning resources? (4) What are some theories for effective resource?

Theories for effective teaching/learning resource selection were developed. Each concept taken as part of the theory is supported by previous literature and is the result of two or all three evidentiary chapters, which was illustrated in Tables 3.4, 3.5 and 3.6 or from the three evidentiary chapters.

Furthermore, the implications are expressed regarding respects: (1) implications for realizing Asia literacy by making Chinese learnable; (2) implications for Chinese language teacher’s education; (3) implications for solving difficulties in resource selection; (4) implications for developing criteria for effective teaching/learning resource selection.

The limitations of this study are discussed and recommendations for further research in this and other related areas are given.
7.2 Discussion of the findings

In this research, the development of criteria for effective resource selection was conducted from three perspectives: the teachers’ perspective, the researcher’s perspective and the students’ perspective. The analysis of the data from teachers and the researcher indicated that teaching/learning resource selection is essential and resources should be selected according to five criteria: curriculum-fit, student appeal, achieving a balance between student attractiveness and other factors when facing conflicts, student appropriate and flexibility. Four criteria were generated from the analysis of students’ data indicating that resources should be selected according to the curriculum, the students’ diverse situations, their interests, and a balance should be struck when interests conflict with other important elements such as the curriculum or teaching effects. The criteria developed from three perspectives triangulated and verified each other’s proposed criteria in the same research phase as well as in different phases.

This research adopted grounded theory approach in analysing data to develop theories for effective resource selection in Chinese teaching/learning. Three crucial steps were involved in this methodology to drive theories from evidence, namely, open coding, axial coding and selective coding, which worked together in a spiral until the generation of the final theories. Different types of evidences including interviews, observations and documents as well as previous literature were investigated to make the argument more cogent.

The key findings of this research cover three respects including (1) difficulties teachers have while selecting resources; (2) teachers’ and students’ attitudes and the reasons; (3) criteria of selecting effective teaching/learning resources, which will all be elaborated on in the following selections.
7.2.1 Difficulties teachers have while selecting resources

The difficulties shown in the evidence are relevant to developing criteria for teaching/learning resource selection. Suggested solutions to difficulties are provided to assist in theory generation.

The first difficulty indicated by teachers concerns the ineffectiveness of the previously used effective resources. The reason for this challenge is that even the same grades at the same school have different characteristics, including different cognitive levels, backgrounds, gender, learning styles, and interests, which all require different teaching/learning resources. Consequently, teachers should be well prepared to know their students well, especially new students. If the teachers know the students well, it would be possible for them to carry out appropriate and effective resource selection. In this way, teachers should choose resources according to students’ various situations.

The second difficulty lies in unexpected teaching effects in class concerning the selected resources. Sometimes the teachers’ expected effects of teaching/learning resources are different from the real situation in class, which is often discerned from the students’ feedback and reactions. In this case, it is better that teachers drop the resources in use at once or go through them quickly, and turn to other effective resources they have selected for backup purposes. In this sense, teachers not only need to know students well, but also need to exercise flexible teaching/learning resource selection. To make it, teachers also need to be sufficiently experienced.

The third difficulty is related with the complexity of the student body. Different students have different situations in every aspect, which causes difficulties in the selection of suitable teaching/learning resources. Teachers need to select different resources to go with different students’ learning. In other words, teaching/learning resource selection should be students-appropriate. To achieve this, teachers need to know the students well and have enough experience to know how to select resources for different types of students.
The fourth difficulty in resource selection is how to keep students interested in learning throughout the whole lesson. The span of students’ interest may not be very long, which depends on their ages, learning abilities, learning styles and resource content. To keep students interested, selecting a variety of interesting resources would be a solution, especially for a long lesson. Moreover, the length and amount of different resources should be appropriate for the students’ age, learning abilities and other factors. Third, different resources should be “linked well” and should revolve around the theme of the teaching content.

7.2.2 Teachers’ and students’ attitudes and the reasons

Teachers’ and students’ attitudes toward different teaching/learning resources are illustrated in this section. Developed concepts for selecting resources are also stated. A comparison between teachers’ and students’ opinions concerning teaching/learning resource selection is demonstrated.

7.2.2.1 Teachers’ attitudes

First, this part shows teachers’ attitudes toward resource selection in general and provides reasons for their attitudes. Second, different teachers’ preferences are shown and the reasons for their preferences are presented. Third, criteria for resource selection from teachers’ perspectives are provided.

In regard with their general attitudes towards resource selection, all teachers when asked “whether teaching/learning resource selection is important” gave positive answers. Most of them regarded it as important because resources’ content can affect students directly. They can engage students in teaching and learning and then impact the learning results indirectly yet magnificently. They gathered that if the resources are selected appropriately, then students will make more efforts in learning and be more likely to learn well.
In terms of their preferences, different teachers had different situations and thoughts concerning preferences in teaching/learning resource selection.

Some teachers suggested that they do not have favour for particular resources when selecting them. These teachers preferred to select a variety of resources according to different learning/teaching situations. There are basically two reasons for their preferences for a collection of resources. First, it is because students have diverse learning styles and needs. Second, it is because different resources perform different functions to deal with different situations. Both reasons stem from teachers’ concern about the effectiveness of the chosen resources.

Other teachers preferred certain resources when selecting them. The main reason for teachers to favour particular resources is that it can attract students, and help them become more absorbed in learning. If students are interested in the selected resources, they would be more focused on learning, which would in time contribute to teaching/learning outcomes.

In conclusion, a part of teachers do not have particular preferences when selecting resources, whereas other teachers do have such preferences. The main reason for their favouring particular resources is that they feel these teaching resources can enable students to be interested in learning, and in turn help them learn better. It is for the same reason that some teachers do not have a specific preference and choose to use a variety.

When it comes to criteria for teaching/learning resource selection, the data present five main criteria: resource selection should be (1) curriculum appropriate; (2) student attractive; (3) strike a balance between students-attractiveness and other factors when facing conflicts; (4) students-appropriate; (5) flexible enough to deal with various situations in teaching and learning.
7.2.2.2 Students’ attitudes

First, students’ attitudes and preferences for different teaching/learning resources are demonstrated in this part. Second, students’ opinions of different resources’ effects are shown to compare with their preferences. Criteria are developed and improved by this comparison.

**Attitudes**

With regard to pictures, younger students, such as stage K/1 students, preferred pictures more than older students. Pictures as teaching/learning resources are more vivid; have fewer words and are easier to understand.

As to videos, students’ preferences increased as they become older. One reason may lie in that videos, as resources with more words and input of information, require higher cognitive levels to process and more prior knowledge to understand.

When it comes to whiteboard games, a majority of students showed preferences because they are games and are enjoyable, which is the main reason the students gave when asked why they preferred a particular teaching/learning resource.

Tests were the least popular resource among students, with the lowest points from all student groups. However, tests are required by the curriculum as an indispensable means of assessing students’ learning.

Of all teaching/learning resources, those that are comparatively enjoyable and attractive, such as games or videos, were more favoured by students. On the contrary, relatively boring resources such as tests turned students away. In that light, teachers should select resources that can trigger students’ interests and engage them in learning. Moreover, students with different ages and cognitive levels preferred different teaching/learning resources. They also showed varying interests in different resources and gave different
reasons when asked why they preferred a particular teaching/learning resource. Therefore, teachers should make resource selection students-appropriate.

**Effectiveness and comparisons**

From the comparison of students’ preferences and teaching/learning resources’ effectiveness, the researcher found that the resources students preferred and they regarded effective are not necessarily identical.

Videos and whiteboard games, two of students’ most favoured resources, were not necessarily the most effective resources. Tests, the students’ most disfavoured resources, ranked high in terms of teaching effects, which indicates that favoured resources may not always be the most effective resources and vice versa. As a result, when selecting resources, teachers should integrate students’ interests and the effectiveness of the resources.

7.2.2.3 Similarities and discrepancies between students’ and teachers’ opinions

Teachers and students as the two main bodies in teaching/learning activities may hold different opinions concerning resource selection. Students see the issue from learners’ perspectives which are the opposite of teachers’ perspectives. Identifying the similarities and discrepancies between their opinions can facilitate perceiving the situations in this aspect and help to develop more objective and credible criteria. The comparison could also help to triangulate the developed criteria to make them more generalisable.

**Similarities in students’ and teachers’ opinions**

From the analysis of Chapter 4 and Chapter 5, teachers’ opinions of how to select teaching/learning resources effectively are illustrated.
Generally, teachers believe that students are different in various ways, including ages, interests, personalities, backgrounds, learning styles, needs and cognitive levels. Selected resources have to be “within the students’ experience and general background to be considered meaningful and motivating” (Banegas, 2012, p. 401). Thus, different students need different resources to assist them in learning productively. In this way, some teachers prefer to select a variety of resources for different students.

Teachers also regard the students’ interest as an important factor to be considered in teaching and learning activities. When selecting teaching/learning resources, teachers pay close attention to resources that the students would be interested in, because when students are interested in the resources, they would be more likely to be willing to learn and learn better. In this way, some teachers prefer to select certain resources they regarded as appealing to facilitate learning.

The analyses of students’ data in Chapter 6 support the two points above. The data show that different students are different in various ways and they have different needs for teaching/learning resources, thus resource selection should be students-appropriate. The analysis of the students’ data also illustrated that if they prefer a type of resource; the main reason is “it is fun”, which justifies the importance of students’ interests. Consequently, selecting student appealing resources should also be a criterion for effective resource selection, since students’ interest is an important factor to engage them in selected resources and in turn enable them to learn more efficiently.

**Discrepancies between students’ and teachers’ opinions**

However, discrepancies between students’ and teachers’ opinions were also detected in data analysis.

Students’ interest is regarded by teachers as an index for resource selection, yet sometimes, their interests are at variance with the requirements of the curriculum. The data in the
evidentiary chapters illustrate that students are not interested in tests, yet tests are effective and indispensable resources required by the Australian curriculum. Since the Australian curriculum makes up the guidelines and frameworks for teaching and learning activities, teachers should consider the curriculum first when selecting teaching/learning resources, even if it goes against students’ interests.

There is another conflict involving students’ interests. The data in the evidentiary chapters show that the resources students prefer sometimes are not the resources the students regard as most effective for learning. Therefore, teachers should to some extent consider the effects of teaching/learning resources. Students’ interests should not be the only issue that is taken into consideration when selecting teaching/learning resources.

With regard to dealing with the conflict between students’ interests and other important aspects, Teacher M stated in her interview that 70 or 80 percent is a relatively appropriate figure for teachers to consider students’ interest, the figure of which should actually be students-appropriate too. In Banegas (2012)’s research, data even indicate that “there was no need to ask students what topics they would like to discuss… Instead, teachers should organize lessons and develop materials about topics they found interesting and relevant” (Banegas, 2012, p. 401), which is an extreme the other way around. To put them together, teachers should be reasonable and find a balanced way when dealing with students’ interests and other factors.

In addition, making teaching/learning resource selection flexible is a criterion mostly on the teachers’ part, thus it only appears in Chapter 4 and Chapter 5, and is not mentioned in Chapter 6, which is about the students’ perspectives on teaching/learning resource selection.

7.2.3 Criteria of selecting teaching/learning resources for effective teaching

Five criteria for effective resource selection are stated in the section below:
7.2.3.1 Curriculum-appropriate

Curriculum as the authentic guideline for teaching and learning should be the priority while selecting teaching/learning resources, because it sets out the requirements and indicates the resources for teaching and learning. As the State of South Australia, Department of Education and Children’s Service (2004) states, teaching and learning materials should be “directly related to a preschool’s or school’s curriculum policy and program, based on the department’s framework of standards and accountability” (p. 10). Making resource selection curriculum-appropriate should be a primary criterion.

7.2.3.2 Students-attractive

Selecting teaching/learning resources according to students’ interests should be a major criterion for resource selection. If the students are attracted by the selected resources, they will be more immersed in learning and in turn learn more productively.

To interest students, teachers need to know the students’ learning levels. This is because if resources are at the students’ levels, then the students could understand them, which is a premise of being interested in them. To help students become interested in selected resources, teachers also need to know the students’ needs of learning, including their motives and what they want to get out of this learning. If teachers know what students’ needs are, they could choose resources according to these needs, which could facilitate engaging students. Third, to interest students in the resources, teachers need to select and prepare enjoyable resources, especially various activities like games, videos or group work. More often than not, students cannot do a single activity for very long, especially those low-achieving students.
7.2.3.3 A balance between students-attractiveness and other factors when facing conflicts

However, the teaching/learning resources students prefer are not always the resources the students regard as most effective. Teachers should consider the effects of the resources, and students’ interests should not be the sole index when conducting effective resource selection. Furthermore, students’ interests may also conflict with the requirements of the curriculum. In this case, the curriculum should be considered first even if the required resources are not something the students are interested in. In addition, students’ interests may also be at variance with other important factors, such as time and teaching goals. Teachers should have enough knowledge and experience to handle these complex situations. When it comes to the method of dealing with the conflicts between students’ interests and other essential factors, a balanced means should be identified to maximise its validity. The importance of making teaching/learning resource selection students-attractive should not be denied or overestimated, but should be maintained to an appropriate extent. The problem here is that all these observations fail to understand fully the notion of student-centred, learning focus Chinese language education. The question for professional teaching of Chinese is how to make the curriculum student-centred, learning focus.

7.2.3.4 Students-appropriate

Teaching/learning resource selection should be students-appropriate in various aspects, such as ages, needs, gender, backgrounds, learning levels, cognitive levels, learning styles and interests.

For the selection of resources to be students-appropriate, teachers need to know the students thoroughly in every possible respect. To know the students well, first, teachers need to be observant. They need to observe the students at the beginning of teaching/learning and know them as well and as quickly as possible. Second, teachers need to be experienced enough to know how students will react to different resources.
However, there is one more thing teachers should pay attention to when trying to make resource selection students-appropriate: the students should not be the sole index for resource selection. The curriculum, effects and other crucial factors should also be considered when selecting teaching/learning resources. Teachers as adults should find a proper and balanced way between leading the students and being led by them when selecting resources.

7.2.3.5 Be flexible

To perform effective teaching/learning resource selection, the selected resources should be flexible to handle various unexpected occurrences in a classroom throughout teaching processes.

The realization of flexibility requires a teacher to choose and prepare enough backup resources. In the event that the selected resources are not succeeding as intended, back-up resources could back the teachers up and avoid failures. Back-up teaching/learning resources could also deal with unexpected reactions and feedback towards certain resources. The selected resources should also be adjusted flexibly while teaching, considering different situations in class, in terms of teaching purposes, students’ feedback, time management and classroom management.

In conclusion, when selecting teaching/learning resources, teachers need to make them flexible both pre-lesson and in-lesson. To realise this, first, backup resources should be at hand to take care of unexpected conditions. Also, adjustments during teaching process should be made whenever necessary.

7.3 Implications of the study

The criteria developed in this study provides significant implications mainly in four aspects: implications for realising Asia literacy by making Chinese more learnable,

7.3.1 Implications for realising Asia literacy

The theory developed in this research helps to implement Australia’s Asia Literacy policy. It responds to the Australian Government’s Asia Literacy Policy by contributing to the aim of making Chinese learnable by developing criteria for effective resource selection. The Australian government advocates the learning of Chinese to achieve Asian literacy to serve its economic interests and to develop a competitive edge for Australian citizens (Ministerial Council on Education, Employment, Training and Youth Affairs, 2008; Orton, 2008). To facilitate this goal, the Chinese language, as a basic tool should first be taught and learned. Considering the challenges that English-speaking learners may encounter while learning Chinese (Orton, 2008), effective teaching/learning resource selection may reduce these challenges by choosing suitable materials for different students.

Chinese is made learnable to realise Asia literacy in mainly two aspects regarding effective resource selection. First, various difficulties were identified in resource selection and suggested solutions were provided to deal with these difficulties and problems. This helps teachers to glimpse what to do when encountering similar difficulties in selecting resources and thereby can carry out more effective teaching. Second, five criteria for effective teaching/learning resource selection were developed to make Chinese learnable. These criteria could be applied to other teaching areas as well, to help teachers know what to expect and how to deal with these issues when select resources.

7.3.2 Implications for Chinese teacher’s education

The findings in this research contribute to the improvement of Chinese teachers’ competence. Singh and Ballantyne (2014) indicates that “teachers from China lack the
necessary education for making Chinese learnable for many students” (p. 199), therefore, “teacher education programs for pre-service and in-service participants are needed to develop teachers’ expertise in helping their students meet the learning challenges of Chinese” (Orton, 2008, p. 6). Thus, qualified teachers are one of the most important factors for successful Chinese teaching/learning for non-Chinese background students. In the skill set of qualified Chinese language teachers, resource selection is basic and important, because it decides what teachers teach and what the students can learn.

This research helps to improve Chinese teachers’ competence in three ways. First, it helps teachers of Chinese to detect the problems and difficulties that may arise in teachers’ resource selection. The four major difficulties were identified in teaching/learning resource selection. Solutions to these difficulties were offered to help teachers when they come across similar challenges. Second, students’ opinions on resource selection were provided and a comparison between students’ and teachers’ opinions was carried out to see the similarities and discrepancies between those two sides’ opinions. In this way, teachers could know what students think; make appropriate resource selection; and in time teach more effectively. Third, criteria for resource selection were developed to help teachers to know how to select teaching/learning resources effectively. Five criteria for resource selection provided in this study make it easier for teachers to know what to choose and how to choose them, thereby improving teachers’ competence to some extent.

### 7.3.3 Implications for solving difficulties in teaching/learning resource selection

This study uncovered four difficulties and problems in teaching/learning resource selection and provided solutions to deal with them. These solutions are intended for helping teachers handle similar difficulties when they encounter them.

**Difficulty 1:** previously functional resources are no longer working.

**Suggested solutions:** know students well and make teaching/learning resources students-appropriate.
Difficulty 2: unexpected teaching effects in class when using the selected resources.
Suggested solutions: know students well and be flexible regarding resource selection.

Difficulty 3: how to select a variety of teaching/learning resources appropriately to fit different students.
Suggested solutions: know students well; be experienced enough to know how to select different resources to meet all students’ needs; and make resource selection students-appropriate.

Difficulty 4: how to keep students interested the whole.
Suggested solutions: select various activities; relate resources well; and keep the length and amount of each resource appropriate according to students’ different learning situations.

7.3.4 Implications for developing criteria of effective resource selection

The theory generated in this study provides important implications for developing criteria of teaching/learning resource selection. First, since the research mainly focuses on resource selection in Chinese teaching, it particularly helps teachers of Chinese understand some criteria of selecting resources to make Chinese learnable for English-speaking learners. The researcher’s data as a Chinese teacher and her students’ data as English-speaking Chinese learners reveal how to select resources to deliver Chinese lessons successfully.

The research also sheds light on criteria in selecting resources for language teachers to teach their native language as a target language in English-speaking communities. Chinese as a target language taught in Australian communities has many characteristics in common with other target languages that are taught in English-speaking communities. The five major criteria for selecting resources for Chinese could be easily generalised for other language teaching.
Moreover, this research which collected data from other non-language teachers also provides criteria for how to select teaching/learning resources in general. By uncovering Chinese teachers’ as well as other subjects’ teachers’ perspectives on attitudes, preferences and difficulties of resource selection, teachers would better understand some concepts and criteria for resource selection. The comparison between students’ and teachers’ views may also help teachers carry out more effective resource selection.

7.4 Limitations

Two limitations of this study are demonstrated in this section. The first limitation relates to the number of research participants. There were only 12 teachers participating in this research, among whom, only five were teachers of Chinese. Therefore, for those who advocate positivism, the small sample size of teachers as well as Chinese teachers may be a problem. To minimise and to some extent eliminate this limitation, two actions were taken. First, grounded theory approach was adopted as the methodology of this research. For grounded theory approach, the credibility of research can be realised through the constant comparison throughout the processes of data analysis (Punch, 2009). Second, the triangulation carried out in this research can help add to the credibility and reduce the subjectiveness of this study. Data triangulation and methodological triangulation were used to ensure that various kinds of data are checked by more than one method and from more than one perspective.

The second limitation is related to the time schedule of data collection and the overall research. The data collection of this study was carried out simultaneously with the participant schools’ daily schooling. Therefore, the design and timetable of data collection was based on the schools’ time table for Chinese lessons – one lesson of 30 to 60 minutes per week for each class. It was somehow inflexible and inconvenient. The time available for data collection was also limited, which was confined by the requirements of the Master degree this thesis is intended for. Two terms were spent on data collection, and those two terms were divided into four phases. However, Chinese learning is a progressive process
which requires more time to practice and accumulate. As a result, the resource selection for Chinese teaching in a long run could not be studied thoroughly within so short a period. Therefore, the research design needs to be adjusted if criteria for teaching/learning resource selection over the long run need to be developed.

7.5 Recommendations for future research

Further research can be conducted to have a deeper understanding of the findings of this research; to build on the findings of this research; to have a look into resource selection from other perspectives; or to conduct research in other related areas.

To start with, it is recommended that further research could develop criteria of resource selection from experienced teachers’ perspectives and beginning teachers’ perspectives, because the theory generated in this research did not divide teachers into groups according to their years of experience. Beginning teachers who are still learning and improving in various aspects could have different opinions in terms of selecting resources compared with those of experienced teachers. Through comparisons, more phenomena could be explored and more insight could be gained.

Moreover, further studies on resource selection could collect data from students regarding other subjects. For example, students’ maths lessons or English lessons could also be studied in terms of resource selection. In this way, cross-disciplinary research can be carried out not only on the teachers’ part, as is demonstrated in this research, but also on students’ part, which will enable the application of the theory to a greater extent.

Third, to further increase the generalizability of the coming research, resource selection for Chinese learners who are not native English speakers could also be investigated. It would allow the generated theory to be applied to a wider range, and the theory developed by that further study would be more cogent and credible.
Last, for the conflict between students’ interest and resources’ effects, further studies could be carried out to develop criteria to shed more light on this dilemma. The complexity of students’ preferences concerning their interests should be considered. The appropriate and balanced point between “making resources attractive” and “making them effective” should be identified.
References


Appendices

Appendix 1: University of Western Sydney Ethics Approval

Locked Bag 1797
Penrith NSW 2751 Australia
Office of Research Services
ORS Reference: H10476 13/010659

HUMAN RESEARCH ETHICS COMMITTEE

7 May 2014

Professor Michael Singh
Centre for Educational Research

Dear Michael,

I wish to formally advise you that the Human Research Ethics Committee has approved your research proposal H10476 "Selecting Learning/Teaching Resources to Make Mandarin Learnable: Facilitating Beginning Mandarin Teachers to Work with English Speaking Students in an English Speaking Country", until 31 December 2014 with the provision of a progress report annually and a final report on completion.

Conditions of Approval

1. A progress report will be due annually on the anniversary of your approval date.

2. A final report will be due at the expiration of your approval period as detailed in the approval letter.

3. Any amendments to the project must be approved by the Human Research Ethics Committee prior to the project continuing. Amendments must be requested using the HREC Amendment Request Form: http://www.uws.edu.au/__data/assets/pdf_file/0018/491130/HREC_Amendment_Request_Form.pdf

4. Any serious or unexpected adverse events on participants must be reported to the Human Ethics Committee as a matter of priority.

5. Any unforeseen events that might affect continued ethical acceptability of the project should also be reported to the Committee as a matter of priority

6. Consent forms are to be retained within the archives of the School or Research Institute and made available to the Committee upon request
Please quote the registration number and title as indicated above in the subject line on all future correspondence related to this project. All correspondence should be sent to the email address humanethics@uws.edu.au.

This protocol covers the following researchers:
Michael Singh, Jinghe Han, Jie Shi

Yours sincerely

[Signature]

Professor Elizabeth Deane

Presiding Member,
Human Researcher Ethics Committee
Appendix 2: State Education Research Approval Process (SERAP) Approval

Ms Jie Shi
Townhouse 5
Kingswood Campus
University of Western Sydney
KINGSWOOD NSW 2747

Dear Ms Shi

I refer to your application to conduct a research project in NSW government schools entitled Selecting Teaching/Learning Resources to make Mandarin Learnable: Facilitating Beginning Mandarin Teachers to Work with English Speaking Students in an English Speaking Country. I am pleased to inform you that your application has been approved. You may contact principals of the nominated schools to seek their participation. You should include a copy of this letter with the documents you send to schools.

This approval will remain valid until 28 April 2015.

The following researchers or research assistants have fulfilled the Working with Children screening requirements to interact with or observe children for the purposes of this research for the period indicated:

Name: Jie Shi                       Approval expires: 10/03/2019.

I draw your attention to the following requirements for all researchers in NSW government schools:

- School principals have the right to withdraw the school from the study at any time. The approval of the principal for the specific method of gathering information must also be sought.
- The privacy of the school and the students is to be protected.
- The participation of teachers and students must be voluntary and must be at the school's convenience.
- Any proposal to publish the outcomes of the study should be discussed with the research approvals officer before publication proceeds.

When your study is completed please email your report to: serap@det.nsw.edu.au.

You may also be asked to present on the findings of your research.

I wish you every success with your research.

Yours sincerely

Dr Susan Harriman
Leader, Quality Assurance Systems
12, May 2014

Policy, Planning and Reporting Directorate
NSW Department of Education and Communities
Level 1, 1 Oxford Street, Darlington NSW 2010 – Locked Bag 53, Darlington NSW 1300
Telephone: 02 9244 5800 – Email: serap@det.nsw.edu.au
Appendix 3: Letter of Invitation to the Principal of Participant Schools

Letter of Invitation—Principals

Dear Principal:

My name is Jie SHI, a Master candidate in educational research (honours) in the Centre for Educational Research at the University of Western Sydney. Professor Michael Singh is my chair supervisor, and Doctor Jinghe Han is my associate supervisor. I would like to invite you and your school to participate in my research project which is selecting teaching resources to make Chinese learnable. The project is titled “Criteria for Teaching/Learning Resource Selection: Facilitating Teachers of Chinese to Work with English-speaking Learners”.

The aims of this research project are to identify what factors are taken into consideration while selecting teaching/learning resources by Chinese teachers and to put forward concepts and criteria for resource selection to make Chinese learnable.

By participating in this research you will help to develop a better understanding of making Chinese learnable in the aspect of resource selection as well as facilitate students’ learning of Chinese at schools. You will be invited to participate in 1-2 interviews. The students and the teachers will be invited to participate in audio-taped individual interviews and weekly classroom observation. What’s more, some students will be invited to participate in audio-taped group interviews. Some documents including school policies, curricula, lesson plans, timetables, feedback, and Chinese worksheets will be collected. The time of these activities will be at the convenience of the students and the school.

Evidence from the interviews, observations and collected documents will be used to investigate the effectiveness and criteria of teaching/learning resource selection in Chinese teaching to make Chinese more learnable.

You and your school’s participation in this research are completely voluntary. You and your school can withdraw from this research at any time. The participants will remain anonymous throughout the course of the project. The consent you provide is solely for the purpose of gaining information. Your data can be withdrawn whenever you decide to withdraw from participating.

If you would like to participate in this research project or would like to have more information concerning any aspect of this project, Jie SHI will be happy to contact you by
email or phone. Her contact details are: Mob: 0415273394; email 17851897@student.uws.edu.au or nchhpdz@126.com

A report of the key findings of this research project will be made available to you upon request.

Thank you for considering your participation in this research project.

Yours sincerely,

Jie SHI

Centre for Educational Research (Penrith Campus),

University of Western Sydney
Appendix 4: Participant Information Sheet (Classroom teachers)

Project Title: Selecting Learning/Teaching Resources to Make Mandarin Learnable: Facilitating Beginning Mandarin Teachers to Work with Students in a Largely English Speaking Country

Project Summary: The purposes of this research project are to identify what factors are taken into consideration while selecting teaching resources by Mandarin teachers and to put forward concepts and criteria for teaching resource selecting to make Mandarin learnable in a largely English-speaking country.

You are invited to participate in a study conducted by Ms. Jie Shi from the Center for Educational Research at the University of Western Sydney, and this research will form the basis for the Master degree of Education (honours) at the University of Western Sydney under the supervision of Prof. Michael Singh and Dr. Jinghe Han.

How is this study being paid for?
The study is sponsored by CER.

What will I be asked to do?
You will be asked to participate in 0-2 interviews and weekly observation. It is completely voluntary. The interviews and classroom observation seek information about the criteria and effectiveness of teaching/learning resources selected for Mandarin teaching. Some interview questions may be based on your observation of the researcher’s Mandarin lessons. You will be asked to complete a participant consent form prior to commencing the interview and observation. The time of these activities will be at the convenience of the school and participants.

How much of my time will I need to give?
An individual interview will take approximately 30 minutes. No extra time will be taken for observation.

What specific benefits will I receive for participating?
Your participation in this research can help the Mandarin teacher select teaching/learning resources more properly to increase teaching/learning effects. Some criteria for selecting teaching/learning resources developed from this project may be applied to the teaching of other subjects.

Will the study involve any discomfort for me? If so, what will you do to rectify it.
This project holds no harm or discomfort for the participants.

How do you intend on publishing the results.
Please be assured that only the researchers will have access to the raw data you provide.
The findings of the research will be published in an Honours thesis in late 2014.
*Please note that the minimum retention period for data collection is five years.
There are a number of government initiatives in place to centrally store research data and to make it available for further research. For more information, see http://www.nds.org.au/ and http://www.rdsi.uq.edu.au/about. Regardless of whether the information you supply or about you is stored centrally or not, it will be stored securely and it will be de-identified before it is made available to any other researcher.

Can I withdraw from the study?
Participation is entirely voluntary: and you are not obliged to be involved. If you do participate, you can withdraw at any time without giving any reason.

If you do choose to withdraw, any information that you have supplied will be destroyed at once.

Can I tell other people about the study?
Yes, you can tell other people about the study by providing them with the chief investigator's contact details. They can contact the chief investigator to discuss their participation in the research project and obtain an information sheet.

What if I require further information?
Please contact Ms. Jie Shi should you wish to discuss the research further before deciding whether or not to participate.

Ms. Jie Shi
Telephone: 04 1527 3394
E-mail: 1785187@student.uws.edu.au

What if I have a complaint?
This study has been approved by the University of Western Sydney Human Research Ethics Committee. The Approval number is [enter approval number]

If you have any complaints or reservations about the ethical conduct of this research, you may contact the Ethics Committee through the Office of Research Services on Tel +61 2 4736 0229 Fax +61 2 4736 0013 or email humanethics@uws.edu.au.

Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

If you agree to participate in this study, you may be asked to sign the Participant Consent Form.
Appendix 5: Participant Information Sheet (Volunteer teacher-researchers)

Private Information Sheet (Volunteer teachers/ Scholars)

<table>
<thead>
<tr>
<th>Project Title:</th>
<th>Selecting Learning/Teaching Resources to Make Mandarin Learnable: Facilitating Beginning Mandarin Teachers to Work with Students in a Largely English Speaking Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Summary:</td>
<td>The purposes of this research project are to identify what factors are taken into consideration while selecting teaching resources by Mandarin teachers and to put forward concepts and criteria for teaching resource selection to make Mandarin learnable in a largely English-speaking country.</td>
</tr>
</tbody>
</table>

You are invited to participate in a study conducted by Ms. Jie Shi from the Center for Educational Research at the University of Western Sydney, and this research will form the basis for the Master degree of Education (honours) at the University of Western Sydney under the supervision of Prof. Michael Singh and Dr. Jinghe Han.

How is this study being paid for?
The study is sponsored by CER.

What will I be asked to do?
You will be asked to participate in 1-2 individual interviews. It is completely voluntary. The interviews seek information about the criteria and effectiveness of teaching/learning resources selected for Mandarin teaching. Some documents will also be collected from you which includes lesson plans, teaching resources and reflection journals. You will be asked to complete a participant consent form prior to commencing the interview.

How much of my time will I need to give?
An individual interview will take approximately 30 minutes. No extra time will be taken for document collection.

What specific benefits will I receive for participating?
Your participation in this research can help the Mandarin teacher select teaching/learning resources in a more proper way to increase teaching/learning effects. Some criteria for selecting teaching/learning resources developed from this project may be applied to the teaching of other subjects.

Will the study involve any discomfort for me? If so, what will you do to rectify it?
This project holds no harm or discomfort for the participants.

How do you intend on publishing the results.
Please be assured that only the researchers will have access to the raw data you provide. The findings of the research will be published in an Honours thesis in late 2014.

*Please note that the minimum retention period for data collection is five years.

Page 1 of 2
There are a number of government initiatives in place to centrally store research data and to make it available for further research. For more information, see http://www.ands.org.au/ and http://www.rdsi.uq.edu.au/about. Regardless of whether the information you supply or about you is stored centrally or not, it will be stored securely and it will be de-identified before it is made to available to any other researcher.

Can I withdraw from the study?
Participation is entirely voluntary: and you are not obliged to be involved. If you do participate, you can withdraw at any time without giving any reason.
If you do choose to withdraw, any information that you have supplied will be destroyed at once.

Can I tell other people about the study?
Yes, you can tell other people about the study by providing them with the chief investigator’s contact details. They can contact the chief investigator to discuss their participation in the research project and obtain an information sheet.

What if I require further information?
Please contact Ms. Jie SHI should you wish to discuss the research further before deciding whether or not to participate.
Ms. Jie SHI
Telephone: 04 1527 3394
E-mail: 17851897@student.uws.edu.au

What if I have a complaint?
This study has been approved by the University of Western Sydney Human Research Ethics Committee. The Approval number is [enter approval number]

If you have any complaints or reservations about the ethical conduct of this research, you may contact the Ethics Committee through the Office of Research Services on Tel +61 2 4736 0229 Fax +61 2 4736 0015 or email humanethics@uws.edu.au

Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

If you agree to participate in this study, you may be asked to sign the Participant Consent Form.
Appendix 6: Participant Information Sheet (Parent/Caregiver)

Human Research Ethics Committee
Office of Research Services

Participant Information Sheet (Parent/Caregiver)

An information sheet, which is tailored in format and language appropriate for the category of participant - adult, child, young adult, should be developed.

Note: If not all of the text in the row is visible please ‘click your cursor’ anywhere on the page to expand the row. To view guidance on what is required in each section ‘hover your cursor’ over the bold text. Further instructions are on the last page of this form.

Project Title: Selecting Learning/Teaching Resources to Make Mandarin Learnable: Facilitating Beginning Mandarin Teachers to Work with Students in a Largely English Speaking Country

Who is carrying out the study?
Ms. Jie SHI

Your child is invited to participate in a study conducted by Ms. Jie Shih from the Center for Educational Research at the University of Western Sydney, and this research will form the basis for the Master degree of Education (honours) at the University of Western Sydney under the supervision of Prof. Michael Singh and Dr. Jinghe Han.

What is the study about?
The purposes of this research project are to identify what factors are taken into consideration while selecting teaching resources by Mandarin teachers and to put forward concepts and criteria for teaching resource selecting to make Mandarin learnable in a largely English-speaking country.

What does the study involve?
The study will involve individual interviews, focus groups discussions, classroom observation and document collection to obtain data from the participants. Your child will be invited to participate in 0-2 individual interviews and 0-2 focus group discussions, each lasting for approximately 30 minutes. Your child will be asked questions about the effectiveness of teaching resources selected for Mandarin lessons. The time of these activities will be at the convenience of the school and participants. Your child will also be observed in Mandarin classes weekly or in other classes concerning the selection of teaching resources. Some feedbacks and worksheets of Mandarin lessons will be collected from your child. Evidence from the interviews, focus groups, observation and documents will be used to develop criteria for teaching resource selection in Mandarin teaching to make Mandarin more learnable. The time of these activities will be at the convenience of the school and participants.

How much time will the study take?
Each child will be involved in 0-2 individual interview, each of which will last for around 30 minutes. Each child will be involved in 0-2 focus group discussion, each of which will last for around 30 minutes too. Each child will also be involved in classroom observation weekly which takes no extra time. Documents collection will also take no extra time.
The collection of data starts from 02/03/2014 until around 16/08/2014, which lasts for 2 terms. And the submission of the thesis will be around 31/12/2014.
Will the study benefit me?
Your child's participation in this research can help the Mandarin teacher select teaching/learning resources in a more proper way to increase teaching/learning effects.

Will the study have any discomforts?
This project holds no harm or discomfort for the participants.

How is this study being paid for?
The study is sponsored by CER.

Will anyone else know the results? How will the results be disseminated?
All aspects of the study, including results, will be confidential and only the researchers will have access to information on participants. The results will be written into a thesis, which will then be submitted to meet the requirements of Master degree of Education (Honours).

Can I withdraw my child from the study?
Your child's participation in the study is entirely voluntary: you are not obliged to consent. Your child may withdraw from the study at any time - or you may withdraw your child from the study at which point all written and audio records of your child's participation will be destroyed.

Can I tell other people about the study?
Yes, you can tell other people about the study by providing them with the chief investigator's contact details. They can contact the chief investigator to discuss their participation in the research project and obtain an information sheet.

What if I require further information?
When you have read this information, Ms. Jie SHI will discuss it with you further and answer any questions you may have. If you would like to know more at any stage, please feel free to contact Ms. Jie SHI at 04 1527 3984 or through E-mail: 17951887@student.unsw.edu.au

What if I have a complaint?
This study has been approved by the University of Western Sydney Human Research Ethics Committee. The Approval number is [enter approval number]

If you have any complaints or reservations about the ethical conduct of this research, you may contact the Ethics Committee through the Office of Research Services on Tel +61 2 4736 0229 Fax +61 2 4736 0013 or email humanethics@unsw.edu.au.

Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

If you agree to participate in this study, you may be asked to sign the Participant Consent Form.
Appendix 7: Participant Consent Form (Classroom teachers)

Participant Consent Form for Classroom Teachers

This is a project specific consent form. It restricts the use of the data collected to the named project by the named investigators.

Note: If not all of the text in the row is visible please 'click your cursor' anywhere on the page to expand the row. To view guidance on what is required in each section 'hover your cursor' over the bold text.

Project Title: Selecting Learning/Teaching Resources to Make Mandarin Learnable: Facilitating Beginning Mandarin Teachers to Work with Students in a Largely English Speaking Country.

I, __________________________, consent to participate in the research project titled Selecting Learning/Teaching Resources to Make Mandarin Learnable: Facilitating Beginning Mandarin Teachers to Work with Students in a Largely English Speaking Country.

I acknowledge that:

I have read the participant information sheet and have been given the opportunity to discuss the information and my involvement in the project with the researcher/s.

The procedures required for the project and the time involved have been explained to me, and any questions I have about the project have been answered to my satisfaction.

I consent to participate in audio-taped interviews and classroom observation (Please cross out any underlined activity that you do not wish to participate in).

I understand that my involvement is confidential and that the information gained during the study may be published but no information about me will be used in any way that reveals my identity.

I understand that I can withdraw from the study at any time, without affecting my relationship with the researcher/s now or in the future.

Signed: __________________________

Name: __________________________

Date: __________________________

Return Address: Jie Shi/Prof. Michael Singh, Center for Educational Research, UWS, Kingswood campus, NSW 2747

This study has been approved by the University of Western Sydney Human Research Ethics Committee.

The Approval number is: [enter approval number]
If you have any complaints or reservations about the ethical conduct of this research, you may contact the Ethics Committee through the Office of Research Services on Tel +61 2 4736 0229 Fax +61 2 4736 0013 or email humanethics@uws.edu.au. Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.
Appendix 8: Participant Consent Form (Volunteer teacher-researchers)

Participant Consent Form for Volunteer Teachers/Scholars

This is a project specific consent form. It restricts the use of the data collected to the named project by the named investigators.

Note: If not all of the text in the row is visible please 'click your cursor' anywhere on the page to expand the row. To view guidance on what is required in each section 'hove your cursor' over the bold text.

Project Title: Selecting Learning/Teaching Resources to Make Mandarin Learnable: Facilitating Beginning Mandarin Teachers to Work with Students in a Largely English Speaking Country.

I…………………………. consent to participate in the research project titled Selecting Learning/Teaching Resources to Make Mandarin Learnable: Facilitating Beginning Mandarin Teachers to Work with Students in a Largely English Speaking Country.

I acknowledge that:

I have read the participant information sheet and have been given the opportunity to discuss the information and my involvement in the project with the researcher/s.

The procedures required for the project and the time involved have been explained to me, and any questions I have about the project have been answered to my satisfaction.

I consent to participate in audio-taped interviews and document collection including lesson plans, teaching resources and reflection journals (Please cross out any underlined activity that you do not wish to participate in).

I understand that my involvement is confidential and that the information gained during the study may be published but no information about me will be used in any way that reveals my identity.

I understand that I can withdraw from the study at any time, without affecting my relationship with the researcher/s now or in the future.

Signed: ____________________________

Name: ____________________________

Date: ____________________________

Return Address: [Enter return address]

This study has been approved by the University of Western Sydney Human Research Ethics Committee.

The Approval number is: [Enter approval number]
If you have any complaints or reservations about the ethical conduct of this research, you may contact the Ethics Committee through the Office of Research Services on Tel +61 2 4736 0229 Fax +61 2 4736 0013 or email humanethics@uws.edu.au. Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.
Appendix 9: Participant Consent Form (Parent/Caregiver)

Participant Consent Form for Parents/Caregivers

This is a project specific consent form. It restricts the use of the data collected to the named project by the named investigators. Where projects involve young people capable of consenting, a separate consent form should be developed. A parental consent form is still required.

Note: If not all of the text in the row is visible please ‘click your cursor’ anywhere on the page to expand the row. To view guidance on what is required in each section ‘hover your cursor’ over the bold text.

Project Title: Selecting Learning/Teaching Resources to Make Mandarin Learnable: Facilitating Beginning Mandarin Teachers to Work with Students in a Largely English Speaking Country

I (print name).................................. give consent for my child (print name).................................. to participate in the research project titled Selecting Learning/Teaching Resources to Make Mandarin Learnable: Facilitating Beginning Mandarin Teachers to Work with Students in a Largely English Speaking Country.

I acknowledge that:

I have read the participant information sheet and have been given the opportunity to discuss the information and my child’s involvement in the project with the researchers.

The procedures required for the project and the time involved have been explained to me, and any questions I have about the project have been answered to my satisfaction.

I have discussed participation in the project with my child and my child agrees to his/her participation in the project.

I understand that my child’s involvement is confidential and that the information gained during the study may be published but no information about my child will be used in any way that reveals my child’s identity.

I understand that my child’s participation in this project is voluntary. I can withdraw my child from the study at any time, without affecting their academic standing or relationship with the school and they are free to withdraw their participation at any time.

I consent to participate in audio-taped interviews, focus groups, classroom observation and document collection including feedback and worksheets (Please cross out any underlined activity that you do not wish your child to participate in).

Signed (Parent/caregiver): ___________________________ Signed (child): ___________________________

Name: ___________________________ Name: ___________________________

Date: ___________________________ Date: ___________________________

Where projects involve young people capable of consenting, a separate consent form should be developed. A parental consent form is still required.

Return Address: [insert address]
This study has been approved by the University of Western Sydney Human Research Ethics Committee.

The Approval number is: [enter approval number]

If you have any complaints or reservations about the ethical conduct of this research, you may contact the Ethics Committee through the Office of Research Services on Tel +61 2 4736 2229 Fax +61 2 4736 0013 or email humanethics@wusu.edu.au. Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.
Appendix 10: Sample interview questions for ROSETE teacher-researchers

Sample interview questions are presented below:

1. How many years of teaching experience do you have?
2. What subject do you teach? What subjects have you taught?
3. What do you think of the teaching/learning resources on the market?
4. Do you think teaching resource selection is important? Why?
5. How do you select resources?
6. Where do you get resources from?
7. Do you have any preferences when you are selecting teaching/learning resources? Why?
8. What do you consider most when you are selecting resources?
9. What resources do you think is most effective in teaching Chinese, why?
10. How do you judge whether a kind of resource is effective or not?
11. What are your criteria for selecting resources?
12. Did you get any help or advice from mentors or other experienced teachers on resource selection? Can you give me some examples?
13. Have you encountered any problem or difficulty when selecting resources? What are they? How did you deal with them?
14. Could you give me an example of an ideal lesson?
Appendix 11: Sample interview questions for experienced Chinese teachers

Sample interview questions are presented below:

1. How many years of experience do you have in teaching?
2. How many years of experience do you have in teaching Chinese?
3. What year/years are you teaching now?
4. What years have you taught?
5. How long is each lesson?
6. Where do you usually get teaching/learning resources from?
7. What kind of resources do you prefer to use in class? Why?
8. What do you think of the resources on the market?
9. Do you think teaching resource selection is important? Why?
10. How do you select resources?
11. Do you have any preference when you are selecting resources? Why?
12. What do you consider most when you are selecting resources?
13. In what aspects do you think teaching/learning resources can affect teaching and learning?
14. What resources do you think is most effective in teaching Chinese, why?
15. How do you judge whether a kind of resource is effective or not?
16. What are your criteria for selecting resources?
17. Have you encountered any problem or difficulty when selecting resources? What are they? How did you deal with them?
18. Could you tell me the advantages and disadvantages of different resources, such as…?
19. Could you give me an example of an ideal lesson?
20. From your observation of my lesson, what do you think about the resources selected for this lesson?
21. What suggestions do you have for me to improve resource selection?
22. What other suggestions do you have for my Chinese lessons?
Appendix 12: Sample interview questions with local teachers

Sample interview questions are presented below:

1. How many years of experience do you have in teaching?
2. What subject do you teach?
3. What subjects have you taught?
4. What year/years are you teaching now?
5. What years have you taught?
6. How long is each lesson?
7. How do you select teaching/learning resources?
8. Where do you usually get resources from?
9. What do you think of the resources on the market?
10. Do you think teaching/learning resource selection is important? Why?
11. What kind of resources do you prefer to use in class? Why?
12. What do you consider most when you are selecting resources?
13. In what aspects do you think resources can affect teaching and learning?
14. What resources do you think is most effective in your teaching, why?
15. How do you judge whether a kind of resource is effective or not?
16. What are your criteria for selecting resources?
17. Have you encountered any problem or difficulty when selecting resources? What are they? How did you deal with them?
18. Could you tell me the advantages and disadvantages of different teaching resources, such as…?
19. Could you give me an example of an ideal lesson?
20. From your observation of my lesson, what do you think about the resources selected for this lesson?
21. What suggestions do you have for me to improve teaching/learning resource selection?
22. What other suggestions do you have for my Chinese lessons?
Appendix 13: Sample interview questions with students

Sample interview questions are presented below:

1. Do you like learning Chinese?
2. Do you think you can learn it well? Why?
3. Do you have any difficulty in learning Chinese?
4. Do you think teaching/learning resources such as videos, games, pictures, songs, etc.,
   can bring differences to your learning? In what way?
5. What kind of resource do you like most? Why?
6. What kinds of resources can help you learn most? Why?
7. Do you like Chinese games? Why?
8. Would you like to play Chinese games all the time every lesson? Why?
9. Do you like videos? Why?
10. Do you like to watch videos all the time every lessons? Why?
11. Will you learn more Chinese in the future, like at high school or at university? Why?
Appendix 14: Students’ feedback sheets

Feedback 01:

(please pick a number to show your answer to the question)

1. I like pictures in Chinese lessons.
   Strongly agree     10  9  8  7  6  5  4  3  2  1      strongly disagree

2. I like videos in Chinese lessons.
   Strongly agree     10  9  8  7  6  5  4  3  2  1      strongly disagree

   Strongly agree     10  9  8  7  6  5  4  3  2  1      strongly disagree

   Strongly agree     10  9  8  7  6  5  4  3  2  1      strongly disagree

What other game/games do you like most? __________________

   Strongly agree     10  9  8  7  6  5  4  3  2  1      strongly disagree

   Strongly agree     10  9  8  7  6  5  4  3  2  1      strongly disagree

   Strongly agree     10  9  8  7  6  5  4  3  2  1      strongly disagree

   Strongly agree     10  9  8  7  6  5  4  3  2  1      strongly disagree

   Strongly agree     10  9  8  7  6  5  4  3  2  1      strongly disagree

10. What thing/things do you like most in Chinese lessons?
Feedback 02:

(Please pick a number and circle it, thank you)

1. Pictures can help me learn Chinese well.
   Strongly agree     10  9  8  7  6  5  4  3  2  1      strongly disagree

2. Videos can help me learn Chinese well.
   Strongly agree     10  9  8  7  6  5  4  3  2  1      strongly disagree

3. Whiteboard games can help me learn Chinese well.
   Strongly agree     10  9  8  7  6  5  4  3  2  1      strongly disagree

4. Tracing Chinese characters/symbols/words can help me learn Chinese well.
   Strongly agree     10  9  8  7  6  5  4  3  2  1      strongly disagree

5. Chinese tests can help me learn Chinese well.
   Strongly agree     10  9  8  7  6  5  4  3  2  1      strongly disagree

6. Chinese songs can help me learn Chinese well.
   Strongly agree     10  9  8  7  6  5  4  3  2  1      strongly disagree

7. Paper cutting can help me learn Chinese well.
   Strongly agree     10  9  8  7  6  5  4  3  2  1      strongly disagree

8. Flash cards can help me learn Chinese well.
   Strongly agree     10  9  8  7  6  5  4  3  2  1      strongly disagree

9. Coloring can help me learn Chinese well.
   Strongly agree     10  9  8  7  6  5  4  3  2  1      strongly disagree

10. What kind of teaching resources do you think can help you learn most (you can also write some other things used in Chinese lessons)? Why can it/them help you in learning Chinese?
## Appendix 15: Research timeline

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