Making Hanzi Learnable for Nonbackground Beginning Learners: An Action Research Study in a Primary School in Australia

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Statement of Authentication

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 Information derived from the published or unpublished work of others has been acknowledged in the text and a list of references is given.

Yong Iong

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Table of Contents

Acknowledgements	11
Statement of Authentication	iv
List of tables	ix
List of figures	X
List of abbreviations	xi
Abstract	xii
Chapter 1: Introduction	1
1.1 Research Background	1
1.1.1 The ROSETE program	2
1.1.2 Personal background	2
1.2 About the Chinese Language	3
1.2.1 Hanzi orthography, strokes and radicals	4
1.2.2 Chinese speaking in Australia	4
1.2.3 Chinese teaching in Australia	5
1.3 Aim	6
1.4 Research Questions	6
1.5 Significance of the Research	6
1.6 Outcomes	7
1.7 Thesis Outline	7
Chapter 2: Literature Review	8
2.0 Introduction	8
2.1 Characteristics of Hanzi	8
2.1.1 Hanzi and the English alphabet	9
2.1.2 Hanzi homophones	10
2.1.3 Pinyin—the Romanisation system for Standard Chinese	11
2.1.4 Three tiers of Hanzi: Strokes, radicals, and characters	12
2.1.5 Formation approaches of Hanzi	17
2.2 Hanzi Teaching Methods and Pedagogies	18

2.2.1 The importance of Hanzi teaching	19
2.2.2 General teaching principles of Hanzi	19
2.2.3 L2 and Hanzi teaching pedagogies	20
2.3 Hanzi Teaching Scaffolding Strategies	24
2.3.1 Questions, cues, and advance organisers	25
2.3.2 Feedback	26
2.3.3 Peer learning	28
2.3.4 Prior knowledge	30
Chapter 3: Research Methods	31
3.0 Introduction	31
3.1 Site Selection	31
3.2 Participants	33
3.2.1 The teacher researcher	33
3.2.2 Student participants	33
3.3 About Action Research	34
3.3.1 What are the strengths of action research?	35
3.3.2 What are the weaknesses of action research?	36
3.3.3 Why action research?	37
3.4 Action Research Design	37
3.4.1 Pedagogy	38
3.4.2 Lesson plan for Cycle 1 and 2	41
3.4.3 Data collection	43
3.4.4 Data analysis	49
3.5 Ethics in Action Research	50
3.6 Generalisability	51
Chapter 4: Activity-Based Hanzi Teaching	54
4.0 Introduction	54
4.1 Developing an Activity-Based Hanzi Teaching	54
4.2 Activity-Based Hanzi Teaching Method	56

4.2.1 Teaching content for Cycle 1	56
4.2.2 Findings from Cycle 1	57
4.2.3 Teaching content for Cycle 2	59
4.2.4 Findings from Cycle 2	60
4.3 Conclusion	64
Chapter 5: Scaffolding—Hanzi Teaching Strategies	65
5.0 Introduction	65
5.1 Questions, Cues, and Advance Organisers	65
5.1.1 Questions	65
5.1.2 Cues and advance organisers	72
5.2 Feedback	73
5.3 Engaging Learners' Prior Knowledge	77
5.3.1 Visual literacy	77
5.3.2 Language transfer	83
5.4 Modelling	88
5.5 Peer Learning	90
5.6 Conclusion	92
Chapter 6: Hanzi Teaching Activities	93
6.0 Introduction	93
6.1 Hanzi Writing	93
6.1.1 Shukong	93
6.1.2 Calligraphy writing	97
6.2 Hanzi Pronunciation	101
6.2.1 Chants	101
6.2.2 Chinese songs	103
6.3 Hanzi Memorising and Recognising	106
6.3.1 Bingo game	106
6.3.2 Spinner game	108
6.4 Hanzi Teaching to be Paralleled with Pinyin	109

6.5 Conclusion	111
Chapter 7: Conclusion, Discussion, and Implications	112
7.0 Introduction	112
7.1 Key Findings	112
7.1.1 Activity-based Hanzi teaching	112
7.1.2 Scaffolding strategies in activity-based Hanzi teaching	112
7.1.3 Activities in activity-based Hanzi teaching	114
7.2 Tendency of the Two-Cycle Action Research	114
7.3 Teacher Researcher's Role Development	115
7.4 For Future Research	116
7.5 Conclusion	117
References	119

List of tables

TABLE 1.1 TOP 10 LANGUAGES SPOKEN AT HOME IN AUSTRALIA	5
TABLE 2.1 MULTIPLE PARTS OF SPEECHES OF HANZI '绿' WITH THE SAME PRONUNCIATION	AND
MEANING	9
TABLE 2.2 SIX BASIC STROKES ADAPTED FROM LAVARINI AND DEL FRANCO (1999)	14
TABLE 3.1 DISTRIBUTION OF STUDENTS	32
TABLE 3.2 ILLUSTRATION OF 3PS, TBLT, AND ACTIVITY-BASED HANZI TEACHING	39
TABLE 3.3 LESSON PLAN FOR CYCLE 1	42
TABLE 3.4 LESSON PLAN FOR CYCLE 2	43
TABLE 3.5 TEMPLATE FOR CLASSROOM OBSERVATION	47
Table 3.6 Sample behaviour log developed from Efron and Ravid (2013, p. 92)	48
TABLE 4.1 TEACHING CONTENT OF CYCLE 1	57
TABLE 4.2 TEACHING CONTENT OF CYCLE 2	60
Table 4.3 Feedback from students' worksheets (Lesson 3, Cycle 2)	61
TABLE 5.1 DATA 2: STUDENTS' USE OF THEIR VISUAL LITERACY	
TABLE 5.2 TWO GROUPS OF HANZI PRONUNCIATION	85
TABLE 5.3 CLASSROOM OBSERVATION FIELD NOTES	87
TABLE 5.4 FIELD NOTES ON THE USE OF MODELLING	89
TABLE 6.1 OBSERVATION NOTES OF SHUKONG ACTIVITY	95
TABLE 6.2 WORKSHEET OF SINGING ACTIVITY	104

List of figures

FIGURE 2.1 A MODEL OF FEEDBACK TO ENHANCE LEARNING (HATTIE & TIMPERLEY, 20	,
	28
FIGURE 3.1 GENERALISABILITY OF ACTION RESEARCH	52
FIGURE 5.1 STUDENTS' HANZI WRITING	81
FIGURE 5.2 EXAMPLES OF THE SAME WORKSHEET WITH DIFFERENT TYPEFACES	83
FIGURE 6.1 SPINNER GAME	109
FIGURE 6.2 AN EXAMPLE OF INPUTTING PINYIN 'YU' USING AN ELECTRONIC DEVICE	111

List of abbreviations

3Ps: presentation-based language teaching (Presentation, Practice, Production)

CFL: Chinese as a foreign language

FPS: Friendship Public School

ICT: information and communications technology

L1: first language

L2: second language

NSW: New South Wales

ROSETE: Research Oriented School Engaged Teacher Education

TBLT: task-based language teaching

WSR: Western Sydney region

WSU: Western Sydney University

Abstract

Hanzi plays an important role in Chinese language. However, many learners find it hard to learn and to recognise, especially young nonbackground beginning learners. This study aimed at making Hanzi learnable to nonbackground beginning learners in Western Sydney, Australia. To achieve this goal, a suitable Hanzi pedagogy should be established and refined; and proper scaffolding strategies should be used in assisting students' Hanzi learning. The following three research questions were posed in this study:

- 1. Which Hanzi teaching pedagogy is suitable for nonbackground beginning learners in Western Sydney public schools?
- 2. What scaffolding strategies should be used to assist students' Hanzi learning?
- 3. What activities are suitable for Hanzi learning in terms of its pronunciation, form, and meaning?

To answer these questions, an activity-based Hanzi teaching pedagogy was established and tested in a two-cycle action research project and refined after Cycle 1. The data shows that activity-based Hanzi teaching effectively engaged students and helped their Hanzi learning. Students learned Hanzi well through activities, and they remembered and recognised the meaning of Hanzi weeks after learning. In Cycle 1, oral language was integrated with activity-based Hanzi teaching, but the data shows that oral language was of limited help in Hanzi learning. The data shows that Hanzi can be more efficiently taught without integrating oral language as the pictographic and ideographic nature of Hanzi determines that Hanzi should be taught in a direct and systematic way. Cycle 2 further demonstrated the effectiveness of the activity-based Hanzi teaching when the teaching focus shifted from oral language to Hanzi itself. Thus, it is suitable to use activity-based Hanzi teaching to teach Hanzi directly and collectively through a series of activities. Useful scaffolding strategies such as questioning, giving feedback, and engaging learners' prior knowledge were identified in the two-cycle action research. Some activities such as chanting, and calligraphy writing used in activity-based Hanzi teaching were found useful in Hanzi writing, form, and meaning recognition. However, students tended to forget the pronunciation of Hanzi after a while, even when the related activities were completed successfully at the time. Further studies are invited to improve this activity-based Hanzi teaching pedagogy.

Chapter 1: Introduction

1.1 Research Background

The Chinese economy has developed rapidly in the last few decades, thanks to the implementation of the reform and opening policy in 1978. Known as the 'World's Factory', China is the world's largest manufacturing economy and exporter of goods (Sims, 2013); it is also the world's fastest-growing consumer market and second-largest importer of goods (Barnett, 2013). According to the Australian Department of Foreign Affairs and Trade (2017), China is Australia's largest export market for both goods and services; it is also Australia's largest source of imports. The Australian Government is pursuing a number of initiatives to strengthen and diversify this relationship (DFAT, 2017).

Whenever there is a growing cultural and economic need for communication between the people of two countries who speak different languages, there is a growing need for the mutual learning of those languages.

The Chinese language is gradually gaining popularity not only in Australia but also in the rest of the world. Many countries are making policies to encourage the learning of Chinese. In Europe, the Council of Europe is shifting its language focus from European languages to Asian languages (Han, 2017). In the United Kingdom, a government report prepared by Tinsley and Board (2014, p. 2) addressed the importance of learning foreign languages 'for employability, for trade and the economy and, for our [their] cultural life', and the Chinese language is among the top ten languages noted in the report. In Sweden, Chinese will be taught in all Swedish schools by 2020 (Australian Government, 2012). Even in Asia itself, there is a trend towards teaching Chinese. South Korea, where the use of Hanzi had been discouraged for decades, will restart teaching Hanzi in public schools from 2018.

The Melbourne Declaration on Educational Goals for Young Australians addresses the importance of Australian children to become successful learners, confident and creative individuals, and active and informed citizens. Asia literacy is one of the factors to achieve these goals. Asia literacy has been a focused concept in relation to Chinese language education (Han, 2017). In Australia's recent curriculum reform, a curriculum for the Chinese language is among the first in development to enable all students to learn a language other

than English (Australian Government, 2012). The ROSETE program was born under these positive developments in the Sino–Australian relationship.

1.1.1 The ROSETE program

This research was situated in an international tripartite-cooperative program—ROSETE (Research Oriented School Engaged Teacher Education). It is an Australia—China partnership in conjunction with Western Sydney University (WSU), the New South Wales (NSW) Department of Education, and the Ningbo Municipal Bureau, Zhejiang Province, China. Every year since 2008, a group of approximately 10 volunteer Chinese teachers have been selected by the Ningbo Municipal Bureau to come to the Western Sydney (WSR) region to teach Chinese language in Australian public schools and to simultaneously undertake research higher degrees at WSU. By the end of 2017, there had been 87 participants in the ROSETE program. The volunteer teachers are required to undertake 10 hours of teaching each week. As part of the teacher education program, the volunteers also undertake workshops, tutorials, and seminars on evidence-driven approaches to Chinese language teaching and learning. Their research topics are also about Chinese language teaching. Most of the volunteer teacher researchers are newly graduated from Chinese universities, while some of them are school and university teachers with some teaching experience in Ningbo. The ROSETE program of 2016 was called the ROSETE 9, as it was the ninth year of the program. As a participant of ROSETE 9, I was assigned to public schools in the WSR and visited the schools weekly on Tuesday and Wednesday. My students ranged from kindergarten to Year 7 students.

1.1.2 Personal background

I always feel lucky to be part of the ROSETE program. Before getting involved in this program, I was an English teacher at a public school in Ningbo, China. My four years' teaching experience made me realise that I needed to further my education to fit this everchanging world. When I saw the recruitment advertisement that volunteer Chinese teachers were needed in Western Sydney, I seized the opportunity. The school where I had been working and the district educational bureau supported my decision, for which I am very grateful. By taking part in this program, I not only contributed to the local community, but also learned a lot from the school where I taught and the university where I studied. Being a participant in ROSETE helps me to make a difference in my teaching career, and teaching in

Australian schools deepens my philosophy of being a teacher; it helps me to see the universal value of this humble yet noble job.

1.2 About the Chinese Language

China is a country with vast territory and complex topography. Before transport was greatly improved and telecommunications were introduced, people were less likely to move from one place to another, and regional communities had fewer communications with the outside world. In this isolation, different regions developed their own kinds of dialect. The agricultural tradition of the ancient Chinese people also meant they had no intention of moving from one place to another once they had settled down unless they were forced because of famine or war. Thus, the languages spoken in China are rather complicated.

China is a country with multiple ethnic groups, multiple languages, multiple dialects, and multiple writing systems. Altogether, there are 56 ethnic groups and about 30 different writing systems. The Modern Chinese language (现代汉语/xiàn dài hàn yǔ) can be subdivided into two categories: The Standard Chinese language (普通话/pǔ tōng huà) and Chinese dialects (方言/fāng yán).

Hanyu (汉语/hàn yǔ), which is now the most widely spoken language by population in the world, used to be the language spoken by Han Chinese. In recent decades, ethnic groups such as Hui (回族/huí zú), Man (满族/mǎn zú), and She (畲族/shē zú) have adopted Hanyu as their main language, and other minority groups are also using both Hanyu and their own languages. After the People's Republic of China was founded, the government standardised Hanyu, known as the Standard Chinese language (普通话/pǔ tōng huà), or Chinese in short.

As for the dialects, according to Wurm and Liu (1987), there are 10 major branches of dialect, including Mandarin (官话方言/guān huà fāng yán), Jin (晋语/jìn yǔ), Wu (吴语/wú yǔ), Hui (徽方言/huī fāng yán), Min (闽南语/mǐn nán yǔ), Cantonese (粤语/yuè yǔ), Hakka (客家话/kè jiā huà), Gan (赣方言/gàn fāng yán), Xiang (湘方言/xiāng fāng yán), and Pinghua (平话土话/píng huà tǔ huà). In each branch, there are some subbranches as well as the local patois (土话/tǔ huà) (Wurm & Liu, 1987).

1.2.1 Hanzi orthography, strokes and radicals

The writing of Chinese and English are quite different. One major difference is that the written Chinese, commonly known as Hanzi, are logograms. This means they are written in characters (Orton, 2017), and each Hanzi represents a word or phrase. In English, a letter represents a sound and does not necessarily carry a meaning (with exceptions for a few letters such as 'a' or 'I'), but in Chinese each Hanzi could have its own meaning(s). Since Hanzi are not combined by letters, there are less phonetic clues for nonbackground beginning learners to pronounce them accurately. The differences between the two writing systems may cause some learning difficulties for those learners.

1.2.2 Chinese speaking in Australia

According to census data reported by the Australian Bureau of Statistics (ABS), Mandarin (Putonghua) is on the rise in Australian households. In 2011, 336,410 persons spoke Mandarin at home, which made up 1.6% of the total population; in 2016, 596,711 persons spoke Mandarin at home, which made up 2.5% of the population. Mandarin is the second most commonly spoken language at home after English, which made up 72.7% of the population in 2016. The proportion of people who spoke Cantonese at home remained the same (1.2%) with a slight increase in number since 2011 (see Table 1.1).

Table 1.1 Top 10 languages spoken at home in Australia

Year	2011		ar 2011		20	16
Language	Persons	Proportion of	Persons	Proportion of		
spoken at home		total		total		
		population		population		
		%		%		
Mandarin	336 410	1.6	596 711	2.5		
Arabic	287 174	1.3	321 728	1.4		
Cantonese	263 673	1.2	280 943	1.2		
Vietnamese	233 390	1.1	277 400	1.2		
Italian	299 833	1.4	271 597	1.2		
Greek	252 217	1.2	237 588	1.0		
Hindi	111 351	0.5	159 652	0.7		
Spanish	117 498	0.5	140 817	0.6		
Punjabi	71 229	0.3	132 496	0.6		
English Only	16 509 291	76.8	17 020 417	72.7		
Australia	21 507 717	100	23 401 892	100		

Source: Census of Population and Housing, 2011 and 2016 (ABS, 2017)

1.2.3 Chinese teaching in Australia

Although the need to learn Chinese is growing, making it learnable by monolingual English-speaking students in Australian schools remains a difficult educational problem (Singh & Han, 2014). One of the reasons that making Chinese learnable is difficult in Australian schools is because of the nature of the language itself (Orton, 2016). There are four major challenges facing language teachers from the perspective of the language itself: (1) Spoken Chinese is tonal, which makes pronunciation hard for many English-speaking learners, (2) the language is written in characters (Hanzi), which are hard to learn and to recognise, (3) 'the lexicon is composed from a set of only 1,200 syllables (many words in their own right, they also form the syllables of compound words)', and (4) there are 'lots of homophones and no English cognates' (Orton, 2016, p. 84).

Another reason is that a suitable pedagogy for Chinese language teaching has not been established in Australia (Huo, 2012). There is little evidence available from research into

effective pedagogies for teaching Hanyu to native English speakers in the early years of schooling through to senior secondary (Han, 2017; Orton, 2015). There is an increasing demand for Chinese teachers in local Australian schools, yet the teacher education program for this specific need has been slow to develop (Han, 2017). To change this situation, it is important to develop current teaching methods to make them suitable for monolingual English-speaking learners in Australia. As a language teacher, I understand how important it is for a student to be able to read and write the language he/she is learning. Hanzi, an important component of the Chinese language, is as important as the alphabet in English, if not more so. Even though progress has been made in current Hanzi teaching pedagogies for native Chinese learners and adult foreign learners, less progress has been made for young beginning learners in Australia (Wu, 2015).

1.3 Aim

As a ROSETE participant, my aim was to make Chinese learnable. Hanzi, which plays an important role in grasping the Chinese language, needs to be made learnable to nonbackground beginning learners, too. However, many students find Hanzi learning difficult, and it has become an obstacle for them to learn Chinese well; thus, the need for making Hanzi learnable is great. The aim of this study was to find proper Hanzi teaching methods including the pedagogy, strategies, and activities to make Hanzi learnable to nonbackground beginning learners.

1.4 Research Questions

- 1. Which Hanzi teaching pedagogy is suitable for nonbackground beginning learners in Western Sydney public schools?
- 2. What scaffolding strategies should be used to assist the pedagogy to make Hanzi learning more effective?
- 3. What activities are suitable for Hanzi learning in terms of its pronunciation, form, and meaning?

1.5 Significance of the Research

This research was conducted based on my teaching practice at a Western Sydney public school. I used an action research approach with two cycles aimed at finding and refining the suitable Hanzi teaching pedagogy and strategies for nonbackground beginning learners to make Hanzi learnable. This research contributes to the teaching of Chinese language in the WSR through this research-based Hanzi teaching practice.

1.6 Outcomes

- 1. A Hanzi teaching pedagogy was generated to make Hanzi learnable to nonbackground beginning learners, especially for the school where I taught, thanks to the school-based action research.
- 2. Proper scaffolding strategies and Hanzi activities were also founded to assist Hanzi learning.

1.7 Thesis Outline

Chapter 2 reviews the literature of the related area, including the characteristics of Hanzi and its formation rules, the trending Hanzi teaching pedagogies used in English-speaking countries, and general scaffolding strategies and classroom activities.

Chapter 3 discusses the methods used in this study. How was the research conducted? How was data collected? How was data analysed, and what methods were used to make the data trustworthy?

Chapters 4 to 6 present analysis of the data, and the final chapter concludes with the findings of this research.

The main argument of this study is that using an activity-based Hanzi teaching method, which actively engages students' prior knowledge and active thinking, could help students to understand the meaning and form of Hanzi. However, it needs supplementary activities to help with Hanzi pronunciation. Scaffolding strategies are also important in engaging the students' Hanzi learning and should be constantly used throughout teaching.

Chapter 2: Literature Review

2.0 Introduction

This chapter reviews the literature related to this study. It includes three major parts: (1) the characteristics of Hanzi, (2) L2 and Hanzi teaching pedagogies, and (3) the scaffolding strategies that are widely used in a language classroom. Reviewing the characteristics of Hanzi had two benefits. It helped me to have a better understanding of Hanzi so that I could build that knowledge into my teaching content. Also, it helped me to improve my teaching. The next part reviews the L2 and Hanzi teaching pedagogies. It helped me to have a clear idea of the strengths and weaknesses of the current teaching pedagogies so that I could develop a new pedagogy to be used to teach nonbackground beginning learners. However, having a proper teaching pedagogy does not guarantee a quality Hanzi teaching outcome. To maximise the learning outcomes and to ease the learning difficulties, scaffolding strategies should also be used to assist the teaching pedagogy.

2.1 Characteristics of Hanzi

Hanzi is an integration of pronunciation/phonology (音/yīn), form/orthography (形/xíng), and meaning (义/yì) (Sun, 1999). For example, the written form (形/xíng) of this Hanzi '囚' is composed by '口' and '人'; it is pronounced as 'qiú'; and its meaning is 'to imprison' because the box '口' is symbolised as a closed room and '人' can be pictured as a person.

Table 2.1 Multiple parts of speeches of Hanzi '绿' with the same pronunciation and meaning

Hanzi/pronunciation	Example	Meaning/parts of speech
绿/lǜ	绿是一种颜色。 (Green is a kind of colour.)	green/noun
绿/lǜ	这是一片绿叶。 (This is a green leaf.)	green/adjective
绿/lǜ	春风又绿江南岸。 (The vernal wind has greened the Southern shore again.)	green/verb

The pronunciation of Hanzi is hard to be perceived by beginning learners when they look at the form of it, although sometimes there are phonetical clues to the pronunciation. But it is a mission impossible for nonbackground beginning learners as their knowledge of Hanzi is very limited. Thus, teaching the pronunciation of Hanzi still remains a difficult educational problem (Huo, 2012).

If we categorise Hanzi according to the way they are formed, there are two kinds: the single-element Hanzi and the compound Hanzi (Cui, 1999). '偏旁' (piān páng) literally means the side components (Haiwei Zhang, 2014) and are used to form compound Hanzi. They are also known as 'radicals'. Originally, all radicals (偏旁/piān páng) were single-element characters; however, with the development of Hanzi, some single-element Hanzi were used as radicals to form new Hanzi (Xu, 2014). On many occasions, those single-element Hanzi that have been modified can no longer be characters by themselves unless combined with other radicals, and those unmodified can still be single characters by themselves (Hao, 1999). Radicals usually have meanings, which give clues to the meaning of the compound Hanzi. Sections 2.1.3 and 2.1.4 give more detailed information of the pronunciation and form of Hanzi.

2.1.1 Hanzi and the English alphabet

Chinese Hanzi are quite different from the English alphabet even though some similarities are shared.

First, for Hanzi, one character represents one phonetic syllable (Yin, 2006). For example, the character '¬; which means horse, is pronounced as 'ma'. In English, a word that carries a meaning might have more than one syllable, such as 'won-der-ful', which has three syllables.

Second, in English, a single character usually does not carry a meaning, such as 'h', 'k', and 'j', whereas in Chinese, a single character can be a word that carries a meaning (Huifen Zhang, 2005).

In English, students can use their phonetic knowledge to pronounce a new word, such as 'a-e' /ei/, cake. However, beginning Chinese learners cannot pronounce Hanzi without the help of Pinyin, even though some radicals do give clues as to the pronunciation of that Hanzi.

2.1.2 Hanzi homophones

According to Aloisi (2018), the definition of a homophone is the words that sound the same but have different meanings and spellings. Since the Chinese writing system is not an alphabet that can be spelled, the definition of the Chinese is slightly different. In Chinese, the homophones are the Hanzi that sound the same but have different meanings and writings. Both English words and Chinese characters have homophones, such as 'for' and 'four' in English and '杨' (yáng) and '怿' (yáng) in Chinese. However, homophones are more common in Chinese than in English. Such characters can be the same in pronunciation but different in meaning. According to Huifen Zhang (2005), there are only 435 independent syllables but up to several tens of thousands of characters (including 3,000 commonly used characters). Thus, the number of Chinese homophones is great. Here is an extreme example of a Chinese homophone. It is a story written by a linguist Yuan Ren Chao in 1971:

《施(shī)氏(shì)食(shí)狮(shī)史(shǐ)》

石(shí)室(shì)诗(shī)士(shì)施(shī)氏(shì),嗜(shì)狮(shī),誓(shì) 食(shí)十(shí)狮(shī)。施(shī)氏(shì)时(shí)时(shí)适(shì)市(shì)视 (shì)狮(shī)。十(shí)时(shí),适(shì)十(shí)狮(shī)适(shì)市(shì)。 是(shì)时(shí),适(shì)施(shī)氏(shì)适(shì)市(shì)。施(shī)氏(shì) 视(shì)是(shì)十(shí)狮(shī),恃(shì)矢(shǐ)势(shì),使(shǐ)是(shì) 十(shí)狮(shī)逝(shì)世(shì)。氏(shì)拾(shí)是(shì)十(shí)狮(shī)尸 (shī),适(shì)石(shí)室(shì)。石(shí)室(shì)湿(shī),氏(shì)使(shǐ) 传(shì)拭(shì)石(shí)室(shì)。石(shí)室(shì)拭(shì),氏(shì)始(shǐ) 试(shì)食(shí)是(shì)十(shí)狮(shī)。食(shí)时(shí),始(shǐ)识(shí) 是(shì)十(shí)狮(shī)尸(shī),实(shí)十(shí)石(shí)狮(shī)。试(shì) 释(shì)是(shì)事(shì)。(Chao, 2011, p. 223)

The English version of *Story of Stone Grotto Poet: Eating Lions* is shown below:

Stone grotto poet Shih by name was fond of lions and swore he would eat ten lions. The man from time to time went to the market to look at lions. When, at ten o'clock, he went to the market, it happened that ten lions went to the market. At this time the man looked at the ten lions and, relying on the momenta of ten stone arrows, caused the ten lions to depart from this world. The man picked these ten lions' bodies and went to the stone grotto. The stone grotto was wet, and he made the servant try to wipe the stone grotto. The stone grotto having been wiped, the man began to try to eat the ten lions' bodies. When he ate them, he began to realize that those ten lions' bodies were really ten stone lions' bodies. Now he began to understand that that was the fact of the case. Try and explain this matter. (Chao, 2011, p. 223)

If Pinyin (the Romanised Hanzi pronunciation system) was used to replace the Chinese writing, nobody would understand the meaning of the story without reading the Hanzi. Thus, learning Hanzi is important for Chinese language learning.

2.1.3 Pinyin—the Romanisation system for Standard Chinese

Hanyu Pinyin, or Pinyin for short, is a Romanised pronunciation system mainly used in mainland China. Literally, it means the 'spell sound' (Hua, 2015, para. 1). There are 26 alphabets, like English with an extra vowel letter 'ü'. When young school students go to school, they are first taught Hanzi with Pinyin. This is because young native Chinese learners can speak Chinese very well, but they are not able to read and write with Hanzi. With the help of Pinyin, they can easily relate the pronunciation to the Hanzi, which makes Hanzi learning much easier.

The Chinese language is tonal (Orton, 2016), just like singing. Therefore, the Pinyin system needs to distinguish different tones. In Pinyin, it uses little marks shown above the vowel letters. There are four discritics of tones with a light sound (no tone) (Hua, 2015). Different

tones might refer to different Hanzi with different meanings, such as 'mā/妈 (mother)', 'má/ 麻 (linen)', 'mǎ/马 (horse)' and 'mà/骂 (to swear)'. 'Ma' without a tone mark is a light sound, which could refer to another Hanzi, '吗'. This Hanzi usually functions as an indicator for a question and does not have any meaning.

The Pinyin system was developed in the 1950s by a group of Chinese linguists headed by Zhou Youguang, who was later recognised as the founding father of Pinyin (Hua, 2015). However, Pinyin is not a new invention. 'According to some scholars, the beginnings of Pinyin were derived after the Chinese observed the Romaji system and Western learning in Japan' (Hua, 2015, para. 3).

The key functions of Pinyin:

- 1. To notate the pronunciation of Hanzi;
- 2. To facilitate the teaching of Putonghua and Hanzi, especially for beginning learners in public schools in China;
- 3. To achieve consistency in crosslanguage translation, such as the names shown on passports and names of places in China (without the tone marks);
- 4. To input Hanzi in electronic devices: Pinyin is now the principal technique for Hanzi input in electronic devices (Haiwei Zhang, 2014).

2.1.4 Three tiers of Hanzi: Strokes, radicals, and characters

The form of Hanzi can be divided into three tiers (Yin, 2006). From part to whole, they are (1) strokes, (2) radicals/components, (3) whole characters (Hanzi). A stroke is the smallest unit of a Hanzi (Yin, 2006). Generally, there are six basic strokes. The classification of strokes will be discussed in 2.1.4.1. A radical is the second smallest unit. Some radicals can be independent single-element Hanzi by themselves, and other radicals are used to form compound Hanzi.

2.1.4.1 Strokes and the classification of strokes

Many CFL (Chinese as a foreign language) learners might think that Chinese writing looks like drawings but, in fact, it is not complicated. There are only six kinds of basic stroke with some variations (Huifen Zhang, 2005). The six basic strokes are: horizontal stroke (横/héng), vertical stroke (竖/shù), left-falling stroke (撇/piě), right-falling stroke (捺/nà), dot (点/diǎn), and tick (提/tí) (Lavarini & Del Franco, 1999). Apart from these basic strokes, there are some

more complicated strokes. They are usually made up of two or more basic strokes (Haiwei Zhang, 2014), such as horizontal—vertical strokes (横折/héng zhé). Each stroke is given a name, so that it is easier to be referred to. Table 2.2 shows the names and shapes of six basic strokes.

Table 2.2 Six basic strokes adapted from Lavarini and Del Franco (1999)

_	横	Horizontal stroke (written from left to right)	as in the character
	héng		$-y\bar{i}$ (one)
1	竖	Vertical stroke (written from top to bottom)	as in the character
	shù		+ shí (ten)
1	撇	Left-falling stroke (written from top right to	as in the character
	piě	bottom left)	八 bā (eight)
\	捺nà	Right-falling stroke (written from top left to	as in the character
		bottom right)	入 rù (to enter)
-	点	Dot (written from top to bottom right or left)	as in the character
	diăn		六 liù (six)
~	提tí	Up-rising stroke (written from bottom left to	as in the character
		top right)	把 bǎ (to grasp)

The Chinese characters (Hanzi) are written in the shape of a square. They are called square-shaped characters (Orton, 2016). A stroke is the smallest unit of a Hanzi (Cui, 1999). Except for the Hanzi '—/yī (one)', Hanzi are formed by more than one stroke (Cui, 1999).

2.1.4.2 The importance of stroke teaching in Hanzi learning

Traditionally, strokes can only be written in certain directions (Lavarini & Del Franco, 1999). For example, the vertical stroke should only go from top to bottom. It would be wrong if done otherwise. The strokes should also be written in a certain order (Orton, 2016), such as '人'; the left-falling stroke comes before the right-falling stroke. Some researchers believe that the principles of the stroke order is a guiding rule for writing Hanzi and should be strictly followed. For example, Huifen Zhang (2005) thought that the right order helps learners write fast and beautifully. Haiwei Zhang (2014) also supported this idea: 'Stroke order contributes to the correct, fast and aesthetic production of Hanzi' (p. 424).

However, whether the strict rules of stroke order are learnable to young nonbackground beginning learners remains in question. Some researchers argue that these rules could increase cognitive load for beginning learners. It has been suggested that, to ease learning difficulty, teachers do not strictly stick to the rules (Han, 2017).

From the frequency of stroke order teaching in almost every Chinese textbook that involves Hanzi teaching, we can conclude that stroke order plays an important part in Hanzi instruction (Orton, 2016). In these textbooks, newly introduced Hanzi are required for the students to follow the stroke order, and 'this is the case not only in China but also in Japan and Korea, where Hanzi are also used' (Haiwei Zhang, 2014, p. 424). Haiwei Zhang (2014) also mentioned that

Neuropsychological studies on priming effects provide intriguing evidence to validate the theoretical claims about the importance of stroke order. Research has demonstrated that enhanced performance was observed in different cognitive tasks when Hanzi was presented as a sequence of strokes/radicals consistent with the standard writing sequence rather than in a random order. (p. 427)

However, there is no convincing evidence showing 'the close relationship between stroke and Hanzi production in terms of empirical studies' (Haiwei Zhang, 2014, p. 425). Also, some teachers' attitudes towards stroke order teaching is quite negative. That is because 'they find it difficult to monitor learners' writing processes without having proper tools; and the stroke writing order does not impede written communication' (Haiwei Zhang, 2014, p. 427).

2.1.4.3 Stroke writing principles and teaching methods

Each Hanzi is composed of strokes and has its own writing order. It won't be easy. Beginning CFL learners need the teacher's guidance when writing a Hanzi with accurate strokes and in the correct order (Chen & Yeung, 2015). However, that does not mean that students need to memorise the strokes and the writing order for each individual Hanzi. There are rules for Hanzi writing that could be taught to students.

The general rules of stroke order found in many textbooks are quite the same. Altogether, there are seven rules (Yin, 2006; Huifen Zhang, 2005):

- 1. A horizontal stroke comes before the vertical stroke;
- 2. A left-falling stroke comes before a right-falling stroke;
- 3. An upper stroke is usually written before a lower one;
- 4. A left component comes before the right one;
- 5. Outer strokes come before the inner ones;
- 6. Inside strokes should be completed before an enclosing stroke of a frame;
- 7. A middle stroke should be written before the sided strokes.

In general, the stroke order is taught according to a process: first, display, and second, practice (Yin, 2006). In textbooks, there are several ways to display the stroke order, and they can be put into three categories: the stroke method, the component-stroke method, and the numeric method (Haiwei Zhang, 2014). One of the most popular methods to practice the stroke order and Hanzi writing is called '描红' (miáo hóng), which means to trace in black ink over characters printed in red. For young beginning learners, '书空' (shū kōng), 'using one's finger to map out the standard stroke order in the air' (Haiwei Zhang, 2014, p. 430) is also frequently practised during the lesson.

2.1.4.4 Stroke order teaching in Western Sydney region context

It is generally understood that CFL learners find stroke order more difficult to learn compared to native Chinese learners (Haiwei Zhang, 2014). Based on my school observation experience last year in Western Sydney, many beginning learners made stroke errors when writing Hanzi. However, according to Huang (2010), there is no significant difference between nonbackground and Hanzi background groups in mastering the complementary rules of stroke order. Whether this finding is trustworthy, or not, there is no denying that stroke order teaching remains a problem in public schools in the WSR.

2.1.4.5 Radicals and classifications of radicals

Hanzi have radicals, like English vocabulary has prefixes and suffixes. Understanding the common radicals is an essential task for students when learning Chinese characters (Hanzi) (Lavarini & Del Franco, 1999). Radicals are basic components to form a compound Hanzi. They are the second-smallest unit followed by strokes (Huifen Zhang, 2005). Many radicals can be single-element Hanzi; however, some radicals can only be used to form compound Hanzi as their forms have changed greatly from their original character and cannot be regarded as an independent character by themselves (Huifen Zhang, 2005). Thus, radicals can

be divided into two groups: single-element Hanzi (radical) and non-character components. Even though some radicals are no longer Hanzi, they can still bear meanings. For many intermediate-level learners who have basic knowledge of radicals, they can guess the meaning of a completely new character by referring to the meaning of its radical(s).

Radicals are used to form compound Hanzi and knowing the form and meaning of radicals helps learners to better understand Hanzi. Those compound Hanzi will not exist without those radicals. Thus, radicals are important in Hanzi learning.

2.1.5 Formation approaches of Hanzi

This part discusses the four basic ways of Hanzi formation. As mentioned in the introduction to this section, there are two kinds of Hanzi by the way they are formed: the single-element Hanzi and the compound Hanzi. The compound characters are composed of radicals following certain formation rules. Those radicals are composed of certain kinds of structure. Generally, there are three types of structure of compound characters: (1) left-right/左右结构, (2) upper and lower/上下结构, and (3) outside and inside structure/包围结构 (Orton, 2016; Yin, 2006). Using these structures, the Hanzi are created following the six-formation rule.

The formation of Hanzi is known as 'liù shū' or six ways of Hanzi formation. The six ways are (1) pictographs (象形/xiàng xíng), (2) indicatives (指事/zhǐ shì), (3) ideographs (会意/huì yì), (4) phonetic compounds (形声/xíng shēng), (5) mutual explanatory (转注/zhǔan zhù), and (6) phonetic loans (假借/jiǎ jiè) (Chao, 2006). Pictographs, indicatives, ideographs, and phonetic compounds refer to the four ways Hanzi are formed, while phonetic loans and mutual explanatory explains how Hanzi could be used. For nonbackground beginning learners, it might be more important for them to understand how Hanzi are formed; thus, the first four ways could be the foci of Hanzi teaching. Huo (2012) believed that understanding the Hanzi formation rules could increase students' ability to observe Hanzi structure, ability to memorise Hanzi, and write Hanzi logically.

1) Pictograph (象形/xiàng xíng): '象' means 'looks like', and '形' means 'the shape', so these two Hanzi together mean 'looks like the shape of something'. When Hanzi were first created, most of them originated from picture writing (Hao, 1999). However, a pictograph is not a picture. Pictographs are the abstract depiction of objects (Huo, 2012). Hanzi such as '石/shí (stone)' '木/mù (tree)' '水/shuǐ (water)' '日/rì (sun)' and '月/yuè (moon)' are

pictographs. For some abstract concepts such as 'time' and 'love', they are difficult to be created using this way.

- 2) Indicatives: '指事/zhǐ shì' literally means point to the matter (Huo, 2012). It refers to the method of forming abstract Hanzi with symbols or indicating signs (Cui, 1999). There are two types of indicatives (Huo, 2012):
 - a. Using a pictograph with an indicating sign;
 - b. Using symbols to express abstract concepts, such as 'time' and 'love'.
- 3) Ideographs: '会意/huì yì' means to work out the meaning of the ideographs. Ideographs are usually created by combining two or more Hanzi or radicals together (Wu, 2015). Looking at the basic word components gives the reader clues about the whole character. The reader can connect the clues to infer the meaning and definition of the whole character.
- 4) Phonetic compounds: '形声/xíng shēng' means shape and sound. This kind of Hanzi usually has two parts: One part bears the semantic meanings of it and the other gives phonetic clues to pronounce the Hanzi (Huo, 2012). For example, '芬/fēn' has two parts: The upper part has semantic meaning, grass or plants, while the lower part '分/fēn' indicates the sound 'fēn'. This Hanzi means the fragrance of flowers or plants.

Even though these are just four basic formation principles, they are regarded as important Hanzi teaching approaches, as the principles help the learners to understand Hanzi better. For teaching young beginning learners, it might be useful to make use of the Hanzi formation rules, such as the 'pictographs', as this kind of Hanzi can be easily visualised by young learners.

2.2 Hanzi Teaching Methods and Pedagogies

Modern Chinese linguistics was originally developed from Western linguistics (Hao, 1999). Hence, for many decades, CFL teaching approaches were quite similar to those used for Indo–European languages (Lü, 1999). According to Western linguistics, characters are simply written symbols; they are not regarded as important as other components of language such as grammar, vocabulary, and phonology. This is a serious oversight when applied to Chinese writing because Hanzi as a writing system is very different to the alphabets used by Indo–European languages. Hanzi are logograms, meaning each single character (Hanzi)

represents a morpheme or a word and has its own meanings (Cui, 1999). However, in English, individual letters represent sounds rather than meanings (Chao, 2006).

Yin (2006) urged a new approach that accommodates the unique features of the Chinese writing system must be found to improve the effectiveness and efficiency of Chinese language teaching.

In 1998, an international Hanzi and Hanzi teaching seminar was held in Paris, France. A new way of Hanzi teaching was urged by Lü (1999) to replace the unsuitable pedagogy derived from Indo–European language teaching. Since then, the importance of Hanzi teaching has been gradually realised by many Chinese teachers (Hao, 1999).

The most popular method to start Hanzi teaching is stroke writing and Hanzi formation learning. Through learning the strokes and Hanzi formation principles, students are assumed to have a good idea of Chinese characters in three dimensions: 'yīn, xíng, and yì'. However, due to the complexity of strokes and Hanzi formation principles, Hanzi learning seems to be difficult and boring for many beginning learners (Lü, 1999).

2.2.1 The importance of Hanzi teaching

'To learn the Chinese language seriously, to understand it precisely, and to appreciate it fully, one needs to learn its written forms: Chinese characters (Yin, 2006, p. 17). From Yin's perspective, Hanzi is the key to better understanding the Chinese language and helps further development of learners' language skills. Some teachers, such as Cui (1999) believe that 'from the beginning of Hanzi teaching, teachers should spare a certain amount of time in instructing Hanzi writing . . . it is critical for learners to form a good writing habit at the very beginning of Hanzi writing' (p. 105). It seems that L. G. Alexander's (cited in Pennycook, 1989) famous saying, 'Nothing should be spoken before it has been heard. Nothing should be read before it has been spoken. Nothing should be written before it has been read' (p. 589) does not fit with the teaching of Chinese characters because of the characteristics of Hanzi mentioned above. Hanzi, an important medium of written language, might better be taught at the very beginning of Chinese language learning.

2.2.2 General teaching principles of Hanzi

Although the traditional Hanzi teaching based on '六 中' (liù shū) became less suitable for modern Hanzi since the 1950s when simplified Chinese characters were introduced (Hao,

1999), the general rules that have been practised for hundreds of years are still being followed. The three general rules generated by Chao (2006) were used in this study. Teaching characters should start

- from characters with fewer strokes to characters with more strokes,
- from simple structures to more complicated structures,
- from a single character to a Hanzi composed of two or more single characters.

Another widely accepted principle is that selecting Hanzi should be based on the frequency of use (Hao, 1999). Before teaching Hanzi, teachers need to select vocabulary that is frequently used in written Chinese. They also need to make sure that easy ones are taught first. In some classes, students are taught to write Hanzi for words they have just learned to speak (Yin, 2006). Therefore, the characters that are frequently used in daily expressions such as 'hello' and 'thank you' are taught first. However, such Hanzi could be difficult despite their high frequency in spoken language. Teaching Hanzi in this way violates the pedagogical principle of teaching from easy to difficult.

The number of frequently used Hanzi is not big. In the classic piece *A Dream of Red Mansions*, the first 80 chapters have a total word count of 501,113 but only 3,264 different Hanzi were used repeatedly (Hao, 1999); the last 40 chapters have 237,132 words, but only 2,589 different Hanzi were used (Hao, 1999). Therefore, for beginning learners, it is important for teachers to start teaching with frequently used Hanzi. Based on these general teaching principles and the traditional teaching approaches, an improved Hanzi teaching method was practised in the action research study.

2.2.3 L2 and Hanzi teaching pedagogies

Since the beginning of teaching CFL in Western countries, there has been a common consensus that Hanzi teaching is one of the greatest obstacles facing language teachers (Chao, 2006; Sung & Wu, 2011; Tse, Marton, Ki, & Loh, 2007). Even though progress has been made in teaching CFL, there are few suitable Hanzi teaching methods and strategies available for nonbackground beginning learners in schools.

According to Orton (2010), Chinese language pedagogy is underdeveloped compared to other languages. Most of the existing pedagogies focus on general Chinese language teaching, especially the spoken language. Thus, it is difficult to find theoretically valid and creative approaches that aim at dealing with the specific and demanding learning needs faced by

nonbackground Chinese learners (Orton, 2010). There is also little evidence available from research into effective pedagogies for teaching Chinese to native English speakers in primary and secondary schools in Australia (Han, 2017; Orton, 2010). Thus, Hanzi teaching pedagogies for young nonbackground beginning learners are limited. In this part, the popular task-based and presentation-based language teaching methods are examined and discussed first, followed by two emerging Hanzi teaching pedagogies in Australia: the visual pedagogy and the postlingual Hanzi teaching pedagogical practice.

2.2.3.1 Presentation-based and task-based language teaching

Although the traditional presentation-based language teaching is out of fashion with communicative language teachers (Johnson & Brumfit, 1979; Skehan, 1998) and acquisition theorists (Long & Crookes, 1992; Skehan, 1998), it is still the most influential and probably the most common teaching approach on a worldwide basis (Skehan, 1998). The presentation-based approach is also known as the 3Ps: presentation, practice, and production. Skehan (1998) gives a clear explanation of how the 3Ps work:

The first stage is generally focused on a single point of grammar which is presented explicitly or implicitly to maximize the chances that the underlying rule will be understood and internalized . . . This initial stage would be followed by practice activities, designed to automatize the newly grasped rule, and to convert declarative to procedural knowledge. . . . The learner would not be expressing personal meanings so much as working through exercises which provide ready-made meanings. . . . At the production stage the degree of control and support would be reduced, and the learner would be required to produce language more spontaneously, based on meanings the learners himself or herself would want to express. (p. 93)

From Skehan's explanation, we can see that the 3Ps approach is spoken language oriented. Should this approach be used in Hanzi teaching, the teacher needs to incorporate the Hanzi teaching with key language points of the spoken Chinese language. With this approach, the teacher is 'the centre of what is happening at all times' (Skehan, 1998, p. 93); thus, it could be difficult to engage learners' creative and critical thinking in this rather controlled approach, which is not ideal for Hanzi teaching. To overcome this weakness, some meaningful and

interesting tasks/topics should be used to replace those practice-oriented but meaningless activities.

Task-based language teaching (TBLT) has gradually gained popularity (Skehan, 1998), despite the powerful influence of the 3Ps in the last decades. TBLT focuses on the use of authentic language, not just for practice. It asks students to do meaningful tasks using L2 in a less controlled way (Ellis, 2003). It is assumed that transacting tasks in this way will engage naturalistic acquisitional mechanisms, cause the underlying interlanguage system to be stretched, and drive development forward (Skehan, 1998). According to Rod Ellis (2003), a real task has four features: (1) A task must have practical meanings, not just for language practice, (2) a task has some untold information (information gap), and students need to fill the gap by doing the tasks, (3) learners have the freedom to choose the linguistic resources to complete the task, and (4) a task should have a clearly defined, nonlinguistic outcome.

Skehan (1998) gave some examples that could be identified as task-based activities:

- Completing one another's family trees;
- Agreeing on advice to give to the writer of a letter to an agony aunt:
- Discovering whether one's paths will cross (out of school) in the next week;
- Solving a riddle;
- Leaving a message on someone's answer machine. (p. 95)

2.2.3.2 Visual pedagogy

Visual pedagogy is one of the identified Hanzi teaching pedagogies for nonbackground beginning learners in Australia. Visual pedagogy in Hanzi teaching refers to a teaching method that actively uses visual tool to reveal the pictographic natures of Hanzi (Huo, 2012). In a research conducted by Huo (2012), she found that visual pedagogy has positive effects on students' Hanzi memorisation, meaning making, and production. Other positive effects were also found in her research:

There are very positive learning outcomes for students who learned Chinese characters under visual pedagogy. The fear of learning characters is overcome, and students are motivated by pictures and stories used in the Hanyu class. . . . A better teacher–student

relationship is formed among students and the teacher. . . . visual pedagogy is found effective in developing students' learning skills, including the six aspects mentioned in BRT [Bloom's revised taxonomy], improving their learning interest and promoting a positive teacher—student relationship. It is proved by some researchers that visual pedagogy can promote critical thinking, develop problem-solving skills, and identify gaps in knowledge. (Huo, 2012, p. 102)

However, there are also limitations of visual pedagogy. The researcher found that visual pedagogy has a negative effect on students' learning of Hanzi writing order. Even by emphasising the correct writing order through modelling and practice, Huo (2012) found that students still made mistakes in terms of stroke order. Other researchers such as Fei (1998) explained why students are easily confused about the writing sequence of Hanzi:

In the Chinese character system, the different composition of strokes is an important way to distinguish the characters. . . . Character components are accumulations of lines and dots, no matter whether they are independent or dependent. CFL educators need to help students to learn the commonly seen ways of composition and the writing sequence of Chinese characters, including the stroke order and the order of writing different components. (Fei, 1998, p. 121)

It seems that students see Hanzi as pictures, which makes it hard to take apart the basic units of Hanzi and distinguish the strokes. Hanzi learning is based on meaningful coding, just like developing the 'themes' of radicals and other frequently used components (Wang, Li, Zhong, & Xu, 1994), but for beginning CFL learners, they do not have such prior knowledge to understand Hanzi in this way. Providing a visual form of Hanzi for students to picturise the meaning of Hanzi does limited help for their Hanzi writing (Huo, 2012). Learners can recall the meaning of Hanzi but they do not know how to write it. They are more likely to draw Hanzi, instead of writing them, when Hanzi are taught in this pedagogy.

2.2.3.3 Postlingual pedagogical practice

There is another emerging Hanzi teaching pedagogy in a recently published book called *Post-Lingual Chinese Language Learning—Hanzi Pedagogy* written by Han (2017). The postlingual pedagogy is not a totally new concept; it is derived from the analyses of *zili* (学

理), the reasoning in Hanzi formation (Han, 2017). The traditional 'lingual method', as Han put it, 'largely focuses on the assumption that first language (L1) plays a key role in second language (L2) learning' (p. 60); however, 'the uniqueness of Chinese language compared with alphabetic English leaves limited opportunities for L1/L2 transfer' (Han, 2017, p. 60). Postlingual pedagogical practice makes full use of the pictographic features of Hanzi, focusing on connecting learners' L2 learning to their understanding of the real world.

Postlingual pedagogy is above/beyond language as the focus is to look into the formation of Chinese language and explore the connection between Hanzi and the order of nature. It aims for learners to recognise and understand the reason, the logic and the thought Hanzi carry. It is an approach to making Chinese language learning a meaning-making, logical thinking and conceptualisation process. (Han, 2017, p. 60)

Postlingual pedagogy proposes that Hanzi learning is a conceptualisation process due to the nature of Hanzi. It also believes that learners from 'other language backgrounds' can understand Hanzi through meaning-making and logical thinking since there are 'shared universalism of minds on logic' (Han, 2017, p.70). Thus, postlingual pedagogy encourages students to use their real-world knowledge, almost everything they know so far (not just their knowledge of L1) to make sense of the meanings of Hanzi, which makes this pedagogy different from the other existing Hanzi teaching pedagogies.

As postlingual pedagogy is less concerned with learners' first language, it is believed to be suitable for any CFL learners despite their L1 background (Han, 2017), and the real-world-related teaching concept makes it suitable for young beginning learners.

2.3 Hanzi Teaching Scaffolding Strategies

Successful teaching requires good scaffolding strategies to engage students. Research clearly shows that people do not learn well when they are treated as passive recipients of prepackaged knowledge (Bolstad et al., 2012): 'Good learning requires active engagement in the "whole game" (p. 2). In this part, I review the popular scaffolding strategies that might be useful in Hanzi teaching by easing the learning difficulty and activating their engagement. These strategies include questioning, giving feedback, peer learning, and making full use of learners' prior knowledge.

2.3.1 Questions, cues, and advance organisers

When walking into a class, it will not be long before you hear a teacher asking questions. In fact, this technique is heavily used in classrooms. Research has shown that asking questions is second only to lecturing (Fries-Gaither, 2008). As this technique works better with another two strategies—cues and advance organisers—some researchers put questions, cues, and advance organisers into one category to scaffold students' learning, especially at the beginning of a lesson. Because of the pictographic and ideographic natures of Hanzi, these strategies might be useful in Hanzi teaching.

'Cues are hints to students about the content of an upcoming lesson; they reinforce information that students already know and provide some new information on the topic' (Dean, Hubbell, Pitler, & Stone, 2012, p. 50). Similarly, by asking a question at the beginning of the lesson, teachers try to wake up learners' knowledge of the previous lesson and see how much they know and what they do not know. When teachers start a new lesson the next week, students might have already forgotten what they had learned the previous week. This strategy could be useful for Chinese teachers who have a long interval between two lessons.

'Advance organisers are stories, pictures, and other introductory materials that set the stage for learning. They are introduced before a lesson to draw attention to important points, identify relationships within the material, and relate the material to students' prior knowledge' (Dean et al., 2012, p. 51). Again, because of the nature of Hanzi, advance organisers could be a helpful strategy in Hanzi teaching.

2.3.1.1 Types of question

There are two major ways of categorising the types of question we use as classroom instruction. A traditional way of categorising the types of question is based on Bloom's taxonomy, with an increasing cognitive level (Fries-Gaither, 2008, para. 8):

- Knowledge—recall the prior knowledge
- Comprehension—make sense of the situation
- Application—use a concept in a new situation
- Analysis—separate concepts into several parts to distinguish between facts and inferences
- Synthesis—combine parts to form a new concept
- Evaluation—make judgments about the value of the concept.

Another way to categorise questions is by their cognitive level: lower or higher cognitive (Fries-Gaither, 2008). Lower cognitive questions involve the recall of information, and higher cognitive questions involve the mental manipulation of information to produce or support an answer (Dean et al., 2012).

According to some studies, lower cognitive questions may be most beneficial for primary students (Fries-Gaither, 2008). This finding does not mean that primary teachers should avoid all higher cognitive questions. However, some research has suggested that higher cognitive questions should be used sparingly with primary school students (Fries-Gaither, 2008).

2.3.1.2 Purposes and functions of questioning

Different types of question serve different purposes and produce different benefits. In language teaching, questioning can be used for a variety of purposes (Dean et al., 2012; Scarino & Liddicoat, 2009):

- To review previous lessons;
- To involve students in the lesson and increase learners' interest;
- To evaluate students' preparation or check on their completion of task:
- To develop critical thinking skills and nurture insights;
- To assess achievement or mastery of goals and objectives;
- To elicit students' existing understanding which is a basis for identifying ways of interacting, scaffolding, and building connections.

Caram and Davis (2005) believed that 'Questions that stretch students' minds, invite curiosity, provoke thinking, and instil a sense of wonder can keep students engaged' (p. 1). Other researchers have also discovered that some types of question motivate learners' active thinking and enhance their engagement.

2.3.2 Feedback

Providing feedback according to students' responses is as important as asking questions. By definition, 'it is conceptualized as information provided by an agent (e.g., teacher, peer, book, parent, self, experience) regarding aspects of one's performance or understanding' (Hattie & Timperley, 2007, p. 81). Teachers can give feedback regarding the students' performance, no matter whether it is good or bad.

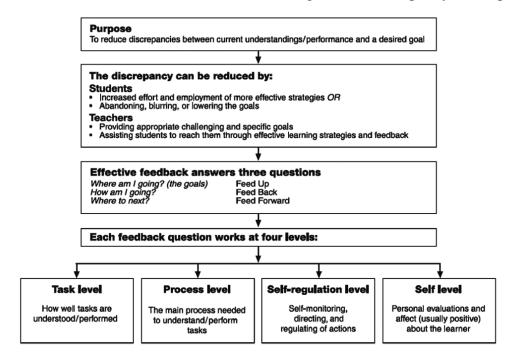
If their answer is wrong, the teacher can provide feedback to redirect or to probe. To be effective, research has shown that feedback should be explicitly focused on student responses. 'If feedback is directed at the right level, it can assist students to comprehend, engage, or develop effective strategies to process the information intended to be learned' (Hattie & Timperley, 2007, p. 104). Vague or critical feedback, such as 'That's not right, try again' does little help in increasing students' academic performance (Fries-Gaither, 2008, para. 2).

Cotton (2001) also mentioned that if students' answers are correct, acknowledging their correct responses is necessary and effective. If praise is directly related to the response, and is sincere and credible, this kind of feedback also has a positive effect on student achievement (Cotton, 2001).

Other educators have found some rules that make feedback effective. Hattie and Timperley (2007) found that to make feedback effective, it needs to be 'clear, purposeful, meaningful, and compatible with students' prior knowledge and to provide logical connections' (p. 104). Kulhavy (1977) found that providing feedback has little effect if the students have little knowledge of the related questions. Then it is hard for the teacher to relate the new information to what is already known by providing feedback (Kulhavy, 1977). Thus, to make feedback effective, teachers need to make sure that students have the proper level of knowledge regarding questions and feedback.

The model proposed by Hattie and Timperley (2007) identified three major feedback questions: 'Where am I going?', 'How am I going?' and 'Where to next?' (p. 87). They also added that, to make feedback effective, teachers need to decide when, how, and at what level the feedback should be provided and to which of the three questions mentioned above it should be addressed (Hattie & Timperley, 2007).

Figure 2.1 A model of feedback to enhance learning (Hattie & Timperley, 2007, p. 87)



Students from different cultural background have different preferences for how feedback should be given. De Luque and Sommer (2000) found that most students from collectivist cultures such as East Asia prefer group-focused feedback, and there should be less self-level feedback. However, students from individualist cultures such as Australia prefer direct feedback that is particularly related to their effort, and feedback should be self-related.

2.3.3 Peer learning

Instructional strategies that could improve students' academic achievements are strongly advocated for primary, secondary, and tertiary education in many countries (Gwee, 2003). Peer learning is one of the useful strategies. Ancient Chinese scholar Confucius once said, '三人行,必有我师', which means one can always learn from his/her peers. This ancient saying still holds its value. In modern life, we still learn from each other. A modern version of this similar belief is 'peer learning'. In fact, peer learning is not just 'a single, undifferentiated educational strategy' (Boud, 2001, p. 3). The term peer learning has been used to describe many forms of interactions, with different goals, peer arrangements, and types of activity (Hogan & Tudge, 1999). In educational contexts, one definition is that

students learn with and from each other as fellow learners without any implied authority to any individual, based on the tenet that students learn a great deal by explaining their ideas to others and by participating in activities in which they can learn from their peers. (Cohen, Sampson, & Boud, 2001, p. 11)

In short, 'peer learning is an educational practice in which students interact with each other to attain educational goals' (Donnell & King, 1999, p. 3). The advantage of peer learning has been identified by many scholars.

Boud (2001) pointed out that the advantage in learning from each other

is that they are, or have been, in a similar position to ourselves. They have faced the same challenges as we have in the same context, they talk to us in our own language and we can ask them what may appear, in other situation, to be silly questions. (p. 1)

In this way, 'not only can they provide each other with useful information but sharing the experience of learning also makes it less burdensome and more enjoyable' (Boud, 2001, p. 1). Cohen et al. (2001) added,

In peer learning, students will construct their own meaning and understanding of what they need to learn. Essentially, students will be involved in searching for, collecting, analysing, evaluating, integrating and applying information to complete an assignment or solve a problem. Thus, students will engage themselves intellectually, emotionally and socially in 'constructive conversation' and learn by talking and questioning each other's views and reaching consensus or dissent. (p. 48)

Famous scholars such as John Dewey and Lev Vygotsky gave a similar idea from the constructivist perspective. John Dewey (1916) in his book *Democracy and Education* wrote, 'Education is not an affair of "telling" and being told, but an active and constructive process' (p. 38). He also mentioned that knowledge is gained through experience, rather than passed down from teacher to student through rote memorisation (Dewey, 1938).

Vygotsky (1962), who developed the concept of the zone of proximal development, provided evidence that students learn better through collaborative and meaningful activities than through individual activities. Thus, peer learning could be useful in Hanzi teaching.

The traditional lecturing teaching mode has been criticised (Gwee, 2003; Meyers & Jones, 1993) for

- turning students into passive recipients of information and making them highly dependent on teachers for their learning needs;
- promoting rote memorisation and recall of facts;
- acquiring abundant knowledge that is difficult to apply in the work environment.

2.3.4 Prior knowledge

Almost all of us have experienced that learning becomes easier if we already have sufficient knowledge prior to the new learning, and that kind of knowledge is known as prior knowledge, which can be defined as 'the knowledge the learner already has before they meet new information' (Xu, 2014, p. 20). Prior knowledge is frequently addressed in researches related to text knowledge of literacy: 'A learner's understanding of a text can be improved by activating their prior knowledge before dealing with the text, and developing this habit is good learner training for them' (Xu, 2014, p. 20). Constructivist theory supports the power of prior knowledge. The three features of constructivist theory are that '(1) learning occurs within a context that is itself part of what is learned, (2) knowing and doing cannot be separated, (3) learning is a process that is extended over time' (Lajoie, 2000, p. 163). From a constructivist's viewpoint, our knowledge is built upon what we already have.

Prior knowledge is not only important for reading and comprehension, but also important in language learning. Learning Hanzi should also make full use of learners' prior knowledge if we are to make Hanzi learnable. There are two kinds of prior knowledge might be especially important in Hanzi learning because of the nature of a Hanzi learner's everyday life experience and knowledge, including literacy: learner's positive language transfer, which helps to pronounce Hanzi accurately.

This chapter reviewed the characteristics of Hanzi and the language teaching pedagogies along with scaffolding strategies to be used in a language classroom. Chapter 3 discusses the research methodology and methods that were used to answer three research questions.

Chapter 3: Research Methods

3.0 Introduction

This chapter discusses the methods used to answer my research questions. First, a detailed description of the data collection site and the participants involved in this study are discussed. Next, I discuss the research methods for this action research study, including its definition, strengths, and weaknesses. I also explain the reasons for using the action research method. Third, I give an overview of my action research design. This includes the pedagogy I chose to use, lesson plans for each cycle, and the data collection and analysis processes. Last, human research ethics procedures and generalisability of this study are discussed.

3.1 Site Selection

This study was only made possible with the support of the ROSETE program. As is mentioned in Section 1.1.1, the program is a tri-party partnership in conjunction with WSU, the NSW Department of Education, and the Ningbo Municipal Bureau, China. The site selection for this study was not totally decided by myself. Rather, the study had to meet the needs of the allocated school.

As one of the participants of the ROSETE 9 program, I was allocated two schools in the Western Sydney region—a high school and a primary school. In the high school, I worked as a teaching assistant because the school had its own Chinese program and Chinese teachers. Thus, it was difficult and less necessary to conduct this study. However, in the primary school, the Friendship Public School (FPS in short; the name has been anonymised), conducting action research to make Hanzi learnable was of great significance.

First, the principal and the school coordinator expressed great interest in the idea of making Hanzi learnable, which made this study possible. I was given the permission to design all the term plans and lessons myself, which gave a lot of flexibility for conducting my study.

Second, there was a great need to conduct this study. At FPS, all the Chinese teachers came from the ROSETE program, and the school did not have any teacher involved in Chinese language teaching. However, most of the volunteer teachers were newly graduated university students from Ningbo, China, and they did not have much experience in Chinese language teaching. Even for those who had some teaching experience like me, our expertise was not Chinese language teaching. There is no denying that we were all beginning teachers who had

the need to improve our teaching. Since the school had started Chinese language teaching, there had been a lack of established language teaching pedagogy and strategies suitable to meet the specific context of the school. Based on these two reasons, both the school and the language teacher felt the need for quality language teaching practice. Therefore, FPS was selected as the site to conduct this study.

Although data was only collected within the classrooms, it is essential to understand the school context because 'incidents and life in a classroom cannot be adequately understood without regard to the school context' (Yuan, 2011, p. 72). Just as Pine (2009) said,

Each school has its own history, programmatic and behavioural regularities, role definitions, time perspective, cultural and modal process of change. An understanding of these elements is a necessary precondition for studying educational change, the impact of an educational innovation, and classroom teaching and learning. (p. 20)

Understanding the school was the first thing to do in this study. According to the Australian federal government website MySchool.edu.au (which is an official resource for parents, educators, and the community to receive important information about each of Australia's schools), FPS had 526 full-time equivalent enrolments with 30% of students having a language background other than English. Table 3.1 shows that more than 60% of students came from a lower social economy family, with only 1% in the top quarter.

Table 3.1 Distribution of students

	Bottom Quarter	Middle Quarters		Top Quarter
School distribution	66%	24%	9%	1%
Australian distribution	25%	25%	25%	25%

Although FPS was located in an economically disadvantaged area, the school provided a well-resourced learning environment that made language teaching much easier. According to the school's own description,

the classrooms at FPS are well resourced to provide a motivating and engaging learning environment for students. Classrooms are rich in literature with resources that are in line with preparing students as future focused learners. All classrooms are Wi-Fi enabled and fitted with interactive whiteboards. Students have access to iPads, laptops and desktop computers to enhance their learning. (Australian Curriculum, Assessment and Reporting Authority [ACARA], 2017)

In summary, FPS was a school in which students were mostly from lower income families, but the school provided a resourceful environment to offer quality education. There was a need to improve the current Chinese language teaching pedagogy, especially the Hanzi teaching methods and strategies to make Chinese learnable.

3.2 Participants

In this study, there were only two types of participant involved. The teacher researcher (me) and the students. As the research was classroom based, no other participants were involved. Although the classroom teachers did stay in the classrooms while I was teaching, their job was to manage the students and offer help whenever it was needed because as a volunteer teacher I did not have legal responsibility for the students. The classroom teachers did not take part in the actual teaching of Chinese language.

3.2.1 The teacher researcher

In action research in educational settings, the teacher is an important participant because they are the source of much of the data. In my case, the lessons I planned, the classes I taught and observed, and the reflective journals were all essential data sources for this study.

As the main participant in the action research, I constantly had new findings as a result of each cycle, and I made improvements to my teaching in subsequent cycles, which was good for both my teaching and the research.

3.2.2 Student participants

The FPS had 526 students at the time I started teaching. The selection of participants was a difficult process at the beginning, as the school wanted all their students from Kindergarten to Year 6 to have the opportunity to learn Chinese. However, given I was the only Chinese teacher at the school, they decided that I would teach different students in each term. For Term 1, I taught Stage 2 (Years 3 and 4) students. For Term 2, I taught Stage 3 (Year 5 and 6) students. In Term 3, I taught Stage 1 (Years 1 and 2) students. Finally, in Term 4, I taught Kindergarten and students with learning difficulties. As it would be difficult to conduct this

research with different students each term, I talked to the school coordinator, and she agreed to let me have two classes that would have Chinese lessons throughout the school year. These were one class each from Year 2 and Year 5. The Year 2 class had 15 students and Year 5 had 25 to 28 students (the numbers varied, as each term they had students coming or leaving), but this did not affect my teaching and research as the change was negligible. Fortunately, all the students and their parents agreed to participate in this study and no student withdrew, which made the data collection process very smooth and stable.

3.2.2.1 Defining nonbackground beginning learners

In this study, the term 'nonbackground beginning learners' is used to refer to learners who come from non-Chinese cultural backgrounds and are in the early years of learning Chinese as their second or third language with limited prior knowledge of Chinese language in terms of its vocabulary, grammar and writing. They are not immigrants from China or other Chinese-speaking countries or regions such as Singapore, and their parents do not speak Chinese as their first language.

In FPS, more than 95% of the student participants spoke English as their first language and had had Chinese lessons in previous years. However, they had minimal Chinese literacy, only knowing things such as greetings and simple animal words. None of those participants were Chinese migrants or had any family members who spoke Chinese at home. As such, all student participants were young nonbackground beginning learners.

3.2.2.2 Age groups of the student participants

There are two age groups of participants in this study. Group 1 (Year 2) aged from 7 to 8 and group 2 (Year 5) aged from 10 to 11. The design of my teaching was based on the Australian Language Curriculum to meet the teaching goals regarding to their age. For Year 2 participants some tasks used in Year 5 were simplified or even replaced by other tasks to make the teaching suitable for the specific age group.

3.3 About Action Research

As mentioned above, there was a need to improve the current language teaching practice to make Hanzi learnable. To do this, I adopted action research as the research method. The reason for choosing action research is discussed in Section 3.3.3. First, I review literature about the method.

Mills (2014) defined action research as 'any systematic inquiry conducted by teachers, administrators, counsellors, or other with a vested interest in the teaching and learning process or environment for the purpose of gathering information about how their particular school operates, how they teach, and how their students learn' (p. 4). In the school context, action research is usually conducted by the teachers to advance their teaching practice and improve students' academic performance (Efron & Ravid, 2013). The benefits of taking an action research approach are self-evident to ROSETE teacher researchers as 'it empowers the teachers to study [their] own circumstances, transform [their] experiences, develop and articulate craft knowledge, take purposeful responsibility for improving practice, and secure ownership of professional knowledge' (Pine, 2009, p. 94).

Mertler (2017) generated five features of an action research:

- 1. First, action research is done by educators themselves. The potential participants are students. Sometimes, they work with colleagues to conduct the research.
- 2. Second, in action research, teacher's own reflection is an important data source.
- 3. There are four basic stages for a cycle of action research: planning, acting, developing, and reflecting.
- 4. Action researches are usually cyclical and iterative.
- 5. The traditional research has a gap between theory and practice, but action research can effectively narrow the gap between them. They help the teachers to identify teaching problems, to test and develop solutions. They also help with the teacher's professional development throughout their teaching career. (p. 31)

3.3.1 What are the strengths of action research?

There are several benefits of doing action research. According to Efron and Ravid (2013),

Educational changes are mostly planned top-down in a hierarchical process. Teachers and other school practitioners are seen as recipients and consumers of knowledge produced by outside experts; their role is to effectively implement research findings in their schools and classrooms. (p. 3)

In action research, teachers are both the producers and consumers of research findings in their local context.

First, unlike traditional research, which is conducted by outside experts to have generalised rules to be applied in most educational settings, action research is conducted by insiders who are involved in the context. The findings of action research are immediately relevant to the improvement of the teacher researcher's practice.

Traditional educational research is usually conducted by university academics. Their target study body is other teachers or schools in a general setting. The 'goal of this type of educational research may be to develop universal theories and discover generalised principles and best practice to improve the quality of education' (Efron & Ravid, 2013, p. 10). The researcher is usually an outsider, who tries to be uninvolved, objective, and unbiased (Mertler, 2011). Thus, there is a separation between theory and practice as mentioned above. However, action research does it differently; the researchers become insiders and they usually study themselves. Their aim may not necessarily be to generate universal theory but to find solutions to a specific problem in their own setting.

Second, action research is very timely in responding to the needs of a context, teachers, and learners (Mertler, 2017). That means, whenever a teacher wants to improve his/her teaching, he/she can use action research to achieve this goal and, what is more, he/she can constantly improve teaching practices in the next cycle so that they can meet the needs of a context and learners.

3.3.2 What are the weaknesses of action research?

However, action research also has its weakness; it has often been regarded as having a lower level of quality (Mertler, 2017). One factor that leads to its lower quality is that the researcher as an insider to conduct the research can sometimes be biased over involved. There might be fewer trustworthy data to be collected to find solid findings.

Thus, it is important for the researcher to make sure that his/her research is trustworthy. Mertler (2011) referred to the quality of action research as its 'rigour'. In general, 'rigour refers to the quality, validity, accuracy, and credibility of research and its findings' (p. 24). To make the research rigorous, researchers should be aware that the research procedures and

data collection methods are not biased and do not only reflect the particular perspective of the researcher (Stringer, 2013).

To overcome the weakness, several strategies could be taken into account (Mertler, 2017; Efron & Ravid, 2013):

- 1. Repeat the cycle if necessary;
- 2. Prolonged engagement and persistent observation;
- 3. Experience with process;
- 4. Poly-angulation;
- 5. Member checking;
- 6. Participant debriefing.

3.3.3 Why action research?

As a ROSETE participant, there were three reasons for using action research in this study. First, as a teacher researcher, my research was based on my teaching practice. One prominent feature of the ROSETE program is that participants study their own teaching practices in a school-based environment.

Second, the timeliness of action research is a key advantage to the research. The aim of the ROSETE program was to make Chinese learnable to school learners in Australia. By choosing action research, I could simultaneously collect data and improve my teaching practice.

Third, as an inexperienced volunteer Chinese teacher, I needed time to prepare and familiarise with the teaching environment. Action research can help us to understand the teaching environment and respond effectively to it when teaching.

3.4 Action Research Design

In this part, I discuss the research processes of the study. Conducting this study involved two action research cycles, lasting for 10 weeks. For each cycle, there were four individual topics, each of which lasted for one to two periods. In my original design, each topic was supposed to finish in one lesson period; however, in practice, some topics took two periods to finish, as the actual teaching time spent on each topic was based on the teaching content and research progress. In the first part of this section, I discuss the pedagogy used for each cycle and explain how and why I developed this pedagogy from Cycle 1 to Cycle 2. Then, I discuss the

lesson plan for each cycle. Next, I discuss the data collection methods and data analysis processes.

3.4.1 Pedagogy

To answer my research question, 'Which Hanzi teaching pedagogy is suitable for nonbackground beginning learners in Western Sydney public schools?', I tested an activity-based Hanzi teaching pedagogy in Cycle 1 and refined it in Cycle 2. This Hanzi teaching pedagogy was developed from two mainstream L2 language teaching pedagogies and current Hanzi teaching methods. In this part, I introduce the activity-based Hanzi teaching pedagogy through explaining how it was developed and why it was anticipated to be suitable for Hanzi teaching.

As was discussed in Chapter 2, two popular pedagogies in second language teaching grew out of communicative language teaching: presentation-based language teaching (3Ps) and TBLT.

The 3Ps follows a routine of present–practice–production. To take the English language as an example, the teacher first *presents* the target language such as 'What's your favourite colour? My favourite colour is blue'. Then students *practice* the two sentences in a controlled way such as 'ask and answer' in pairs. Once they become familiar with the target language, the teacher moves to the *production* stage to further practice the learned language in a less controlled way. Through the three-step teaching, the students are likely to acquire the pronunciation of the related vocabulary, and they can easily relate the vocabulary to the spoken language in the key sentence, so teaching the meaning and spelling of the vocabulary become much easier. The 3Ps is a teacher-friendly teaching method as 'it generates clear and tangible goals, precise syllabuses, and a comfortingly itemizable basis for the evaluation of effectiveness' (Skehan, 1998, p. 94). However, it can be less friendly to students as they passively receive knowledge from the teacher-led three-step process; they have less control over their learning and could be less engaged. Due to the uniqueness of Hanzi, which require students to engage their prior knowledge to make sense of the meaning and form of Hanzi, students' levels of active thinking and engagement directly affect their learning outcome.

TBLT does better in terms of student engagement and active thinking. Unlike the 3Ps, TBLT is more student centred. This teaching pedagogy is based on the belief that students can learn a language through doing a series of tasks. For a 'strong' approach to TBLT, tasks must meet four features: (1) A task needs to have some practical meanings, not just for language practice,

(2) a task needs to have an information gap (hidden information), which students need to close by completing the task, (3) students choose the target language to complete the task, not decided by the teacher, and (4) a real task should have nonlinguistic outcomes (Ellis, 2003). However, this kind of task did not apply to the nonbackground beginning learners, as all my students were entry-level beginning learners who did not have much knowledge of Chinese language; thus, a strong approach to TBLT was not suitable for Hanzi teaching at the school where I taught, but the idea of using 'tasks' to learn a language could be used in Hanzi teaching. If tasks are used in Hanzi teaching, students will surely be more engaged.

To make Hanzi learnable by using the concept of tasks, I made compromises with some of the tenets of TBLT, so that the nonbackground beginning learners could be taught Hanzi through doing different tasks that were fun and engaging. To distinguish this from the tasks in a strong approach to TBLT, I used the word activity. For an activity, it does not need to meet the four features of tasks. Activities could, but not necessarily, have pragmatic meaning or gaps; they do not require nonlinguistic outcomes. An activity could be an interesting game or role play that could engage the students in their Hanzi learning. Since students did not have much knowledge of Hanzi, the teacher could still borrow the concept of 3Ps to present the Hanzi by using a series of scaffolding strategies to engage students.

The activity-based Hanzi teaching can be regarded as a 'weak' form of TBLT with presentation-based language teaching features. The teacher uses a series of activities to invite the students to take part in the Hanzi learning. By doing those activities, students are supposed to have a better understanding of Hanzi. Table 3.2 illustrates the idea of activity-based Hanzi teaching.

Table 3.2 Illustration of 3Ps, TBLT, and activity-based Hanzi teaching

Presentation-based language teaching	Teacher centred; there might be a problem of student engagement; passive learning Teacher presents the target language prior to practice, which eases the learning difficulty for beginning learners
Task-based language teaching	It usually has tangible goals and explicit syllabuses Learning through doing tasks But tasks must be authentic, have gaps, have meaning, and have non-linguistic outcomes Student centred; engaging; active learning Teacher does not present and teach the target language prior to tasks, which could be difficult for beginning learners
Activity-based Hanzi teaching	Learning through doing activities; Activities do not always have pragmatic meaning, information gaps, or nonlinguistic outcomes Could be teacher centred or student centred, depending on the teaching content and activities Teacher presents or teaches Hanzi prior to the activity or even during the activity As it is less student centred compared to TBLT, suitable strategies need to be used to engage the students Overall teaching procedures: 1. Present Hanzi or key language using activities including Q&A, chanting, YouTube videos, animated Hanzi movies, etc. 2. Practice by playing games, doing Hanzi writing activities, singing a Chinese song, and doing worksheets, either

individually or in groups
Note: Teachers need to make full use of scaffolding strategies to engage students' Hanzi learning.

3.4.2 Lesson plan for Cycle 1 and 2

To carry out the teaching using an activity-based Hanzi teaching, a lesson plan was developed. For each cycle, there were four topics with various activities to be used during the teaching. Table 3.3 shows the lesson plan for Cycle 1.

Table 3.3 Lesson plan for Cycle 1

Cycle 1	Торіс	Activities	Hanzi Teaching
Lesson 1	Greetings	Role play; Hanzi writing	上, 中, 下, 卡, 你, 好, 我
Lesson 2	Ordering Food	Role play; Hanzi writing	炒(面), 炒(饭), 火 (锅), 米 *Hanzi in brackets were not focused
Lesson 3	Colours That I like	Spinner game; Hanzi writing	红色, 白色
Lesson 4	Numbers	Bingo game; Hanzi writing	一, 二, 三, 四, 五, 六, 七, 八, 九, 十; 元

The lesson plan for Cycle 2 shares a similarity with Cycle 1; however, as the teaching focus for activity-based Hanzi teaching changed, the topics of this cycle focused on the Hanzi itself; it no longer integrated the oral language teaching into the teaching. Table 3.4 shows the lesson plan for Cycle 2.

Table 3.4 Lesson plan for Cycle 2

Cycle 2	Topic	Activities	Hanzi Teaching
Lesson 1	Picture the meaning of Hanzi: Pictographic (1)	Individual worksheet activity; peer discussion; calligraphy	日,月,山,木,人
Lesson 2	Picture the meaning of Hanzi: Pictographic (2)	Watch animated Hanzi cartoon; group discussion; calligraphy writing	林, 网, 石, 子, 夫
Lesson 3	Think about the meaning of Hanzi: Ideographic	Group discussion; peer discussion	人, 从, 众 小, 大, 尖 木, 林, 森
Lesson 4	Revision (pictographic and ideographic Hanzi in the lyrics)	Peer discussion; group discussion; sing a Chinese song	田水森工人一大山飞

3.4.3 Data collection

In this study, the data was collected in three ways. First, I discuss how data collection was triangulated to make the research more trustworthy. Then, I give a detailed explanation of how and what kind of data was collected.

3.4.3.1 Triangulation

This study used a triangulation method to make the research trustworthy. Pine (2009) defined triangulation as 'a process in which multiple forms of diverse and redundant types of evidence and perspectives are used to check the validity and reliability of action research outcomes' (p. 83). It is an effective approach to compare and contrast a same situation from different perspectives to make findings sound and valid (Baumfield, Hall, & Wall, 2013).

According to Altrichter, Feldman, Posch, and Somekh (2008), triangulation has the following three advantages:

- It gives a more detailed and balanced picture of the situation.
- The contradictions that are often hidden in situations become visible, enabling a more profound interpretation.
- It breaks the 'hierarchy of credibility', which limits our understanding, by giving equal status to people from different ranks . . . triangulation regularly shows that pupils are able to help explain a situation by providing relevant information hitherto unknown to the practitioner. (p. 147)

However, such a method is not perfect. Altrichter et al. (2008) also mentioned some 'disadvantages' of triangulation. First, for many practitioners, especially those who are new to research, triangulation could be threatening as 'it demands a high degree of self-confidence to confront your own perceptions of a situation for which you feel responsible for other people's perceptions, and in doing so to question them' (Altrichter et al., 2008). Second, triangulation provides considerable volume of data that makes the data analysis process time consuming (Altrichter et al., 2008). Since all research is time consuming, these disadvantages cannot be reasons for avoiding the use of a triangulation strategy. From Sections 3.4.3.2 to 3.4.3.4, I give a detailed discussion about the triangulated data collection sources.

3.4.3.2 Reflective journals

Although the data was collected from three different sources, they were not equally distributed either in volume or in importance. In this study, my reflective journals were the major data source. The other two sources, classroom observations and students' worksheets, served two functions. First, they added detail to my reflective journals. Sometimes, words (in the form of reflective journals) cannot express everything that happens during a lesson. For example, reflective journals cannot fully describe the performance of my students' Hanzi writing without the help of their worksheets. Second, the other two kinds of data helped to triangulate the whole data. As is mentioned in Section 3.4.3.1, this study used a triangulation method to make the data more trustworthy. The reflective journals were written after the class. Sometimes, the thoughts recorded in the reflective journals could have been biased. The classroom observation notes and students' worksheets helped me find the contradictions and further justify my thoughts.

To maximise the use of reflective journals for data analysis and answering the research questions, the practitioner is required to think deeply and write about a learning experience (Efron & Ravid, 2013). In this study, I focused on the following four aspects in my reflective journals:

- 1. Students' responses/feedback to my teaching pedagogy, strategies and activities;
- 2. Students' performance based on the classroom observation notes and their worksheets;
- 3. Teacher's general thoughts/feelings towards the whole teaching procedure.
- 4. Teacher's thoughts about improving the current teaching (pedagogy, activities, strategies etc.).

In writing a reflective journal, I asked myself, 'What happened (positive and negative)?', 'Why did it happen?', 'What does that mean?', and 'How can I do better next time?'

3.4.3.3 Observation

'Observation refers to looking at a setting purposely' (Efron & Ravid, 2013, p. 86). This kind of data collection method is used in our everyday teaching, whether we are aware of it or not. Some data can only be collected through observation. It has some strengths that other data collection methods do not have. For example, to find out whether learners are able to write Hanzi in the correct stroke order, the teacher has to be there and pay attention to their writing. This kind of data could not be collected from the worksheet since I could not tell whether those Hanzi were written in the correct stroke order, or not. High-quality observations have many strengths, as Efron and Ravid (2013) pointed out:

The act of observation provides a powerful insight into the authentic life of schools and classrooms. You can systematically observe the activities, people, and physical aspects of your educational setting. Observations allow you to view the school, the classroom, or specific individuals in those settings and to see things that you may unconsciously miss in the often-chaotic dynamics of teaching. (p. 86)

Several tools were used for observation: an observation template, behaviour log, and recording equipment.

The observation template helped me to take field notes during my observation. There are two kinds of field note: descriptive field notes and reflective field notes. According to Efron and

Ravid (2013), 'descriptive notes aim to record what happened during the observation without inferring feelings or responses to what is happening' (p. 88) and '[r]eflective notes are used to record reflections and insights about what is happening in the setting' (p. 90). I took both types of field note using the template (see Table 3.5) developed from Efron and Ravid (2013, p. 91).

Table 3.5 Template for classroom observation

Research question(s):					
Date of observation: Time frame:					
Location of observation:					
Who are the foci of the observ	vation?				
Activities:					
Purpose of observation (behavior	viours, inte	eractions, responses):			
How does the observation ref	lect what I	want to know?			
What is important here?					
What would I want to f		more closely if/when I			
Stroke writing Checklist	Tick or cross	Descriptive Field Notes	Reflective Field Notes		
Stays on task					
Is able to identify 'heng'					
Is able to identify 'shu'					
Is able to identify 'pie'					
Is able to identify 'na'					
Is able to identify 'dian'					
Is able to identify 'ti'					
Correct writing order					
Other:					

In addition, a behaviour log (see Table 3.6) enabled me to keep a detailed record of students' engagement with lessons and activities.

Table 3.6 Sample behaviour log developed from Efron and Ravid (2013, p. 92)

Child	Grade I	Date Observed	Setting
Time	Cognitive engagement/ numbers observed	Behavioural engagement/ numbers observed	Emotional engagement/ numbers observed

To help recall what happened during the lesson while I was writing a reflective journal, I used an audio recorder. The recorder was mainly used to record my teacher talk during the lesson. However, in some rare occasions when I felt necessary to take a note of the teacher—student interaction, students' responses were also noted in my reflective journals. However, for this study I had no intention to distinguish their identities; hence, no names were mentioned in the reflective journals. The following three tips suggested by Efron and Ravid (2013) were followed when using the audio recorder:

- As my participants were primary students, I sought permission from the carer, the classroom teachers, and the students themselves before recording my own voice in class.
- I prepared and test ran the device before the class to make sure it worked properly.
- I took observation notes based on the recording and reflected.

3.4.3.4 Worksheets

For each cycle, one or two worksheets were designed for individual Hanzi writing practice or group work. Although it was hard to tell from the worksheet whether the students were writing characters with the correct stroke order, the accuracy of Hanzi such as the correct stroke numbers and students' understanding of Hanzi such as radicals or Hanzi formation could still be evaluated through the worksheets. This data was analysed to understand how well students were learning with the new Hanzi pedagogy. Combined with my observation results, the performance of their Hanzi learning could be evaluated and improved accordingly.

The contents of the worksheets included individual Hanzi writing, peer work activities such as matching the pictures with the Hanzi or guessing the meanings of pictographic Hanzi, templates for the games during the lesson such as the Bingo game, and lyrics of the Chinese song.

3.4.4 Data analysis

The data collected was analysed through thematic analysis, which is used in qualitative research to examine themes within data (Daly, 1997). In general, the processes for thematic analysis follow six phases (Braun & Clarke, 2006):

- 1) Familiarise with the raw data.
- 2) Look for emerging initial codes.
- 3) Look for themes among the codes.
- 4) Review themes.
- 5) Define and name themes.
- 6) Produce the final report.

According to Ary, Jacobs, Sorensen, and Walker (2012), action research data analysis aims 'to answer two questions: "What is the story told by the data?" and "What might explain this story or what factors influenced the story?" (p. 567).

To answer those two questions, I first familiarised myself with the raw data. By putting my reflective journals, students' worksheets, and classroom observation notes together, I reviewed and organised the data and sorted it into three groups; each group of data was supposed to answer my three research questions. Then, the next step was to code the data.

Coding is usually the first step to develop themes within the raw data (Boyatzis, 1998). Themes were developed from codes, but they are equal to codes. Saldaña (2016) said that 'several qualitative texts recommend that [we] initially "code for themes" (p. 15), which he believed is misleading:

A theme can be an outcome of coding, categorization, or analytic reflection, but it is not something that is . . . coded. A datum is initially and, when needed, secondarily coded to discern and label its content and meaning according to the needs of inquiry. Rossman and Rallis (2003, p. 282) explain the differences: think of a category as a word or phrase describing some segment of your data that is explicit, whereas a theme is a phrase or sentence describing more subtle and tacit processes. As an example, SECURITY can be a code, but DENIAL MEANS A FALSE SENSE OF SECURITY can be a theme. (Saldaña, 2016, pp. 15–16)

By looking and comparing within each group of data, I generated initial codes related to the research questions. Then, based on the repetition of the codes, I identified the possible themes. Next, I reviewed the themes and defined the theme through interpretation by asking the second question, 'What might explain this story or what factors influenced the story?' (Ary et al., 2012, p. 567). Last, I produced this final report by answering the research questions.

3.5 Ethics in Action Research

To minimise ethical issues arising from this study, the research was conducted by strictly following the ethical regulations of WSU (Human Research Ethics Committee Approval No. H12275) and NSW Department of Education (State Educational Research Approval Process No. 2017124).

The researcher received consent from both the students (including their parents) and the school principal. To ensure that the pre-existing relationship between the students and me did not impair participants' free and voluntary consent and participation in the project, I entrusted an independent, third-party teacher at FPS to recruit students. The teacher sent out an email to the parents/carers of students in the Chinese classes to introduce the aims, methods, expected outcomes, and benefits of this study. A participant information sheet and a consent form were attached. Those parents who were interested were asked to contact the researcher.

Potential participants' rights to participate or not were respected. Those who contacted the researcher for further information or to accept the participation invitation were encouraged to ask questions and were further informed about their rights or their children's rights to

withdraw at any time without any consequences. In the case of withdrawal, the data relating to the participant would have been destroyed.

There was potential for participants to become anxious during the observation; however, all research was conducted as a part of ordinary schooling and participants were supposed to have a better understanding of Chinese language with possible better outcomes. If a participant chose to withdraw from the research, they would still have been able to attend my Chinese class. The existing teacher—student relationship would not have changed. By the end of this research, no students or parents had withdrawn from this study.

To protect the rights of any student involved in this study, no data was collected prior to the ethical approval of the research, and the risks were lowered to minimal. The School of Education at WSU takes responsibility for ensuring the information is retained and securely stored for the required period and subsequently destroying all data after the required five-year period.

3.6 Generalisability

The key motivation for doing action research is to find a solution for an educational problem or to improve teaching. Usually, it is not aimed at 'creating theories or to be generalisable' (Ary et al., 2012, p. 552). However, that does not mean that findings from action research are not useful for people other than the researcher. The cartoon dialogue (see Figure 3.1) from Ary et al. (2012, p. 548) explained this well.

Figure 3.1 Generalisability of action research



In this cartoon, one teacher is doing action research. One teacher says, 'But what use is it to others? You can't generalise from what you find in your class to all classes. What you learn only applies to your class'. Another teacher replies, 'But if we share our action research findings, others might be inspired to change their own practices or come up with ideas for their own studies'.

Generalisability refers to 'the extent to which findings from an investigation can be applied to other situations and is determined by the people in those situations' (Merriam, 1995, p. 58). Although the generalisability of an action research might be limited compared to traditional research, people can still use those findings in a similar context or even come up with new ideas. Some researchers such as Pine (2009) also agreed that evidence and conclusions from action research projects are generalisable:

If an action research study finds that a particular instructional or curriculum change works well, then it makes sense to recommend that other teachers try implementing the innovation if they are faced with a similar situation to another with similar contexts and circumstance could be considered a form of provisional testing rather than an unqualified recommendation. (p. 90)

If the generalisability of an action research is limited, at least it is applicable to a specific class in a specific school. In my case, after my volunteer teaching finished, the next ROSETE teacher who took my class will surely benefit from the findings of my research or could maybe further the study and revise his/her teaching practice based on my research.

Chapters 4, 5, and 6 analyse the data related to my three research questions. Chapter 4 answers the question, 'Which Hanzi teaching pedagogy is suitable for nonbackground beginning learners in Western Sydney public schools?'. In this chapter, I discuss the suitability of the activity-based Hanzi teaching pedagogy developed from 3Ps and TBLT through identifying its strengths and weaknesses according to the data. Chapter 5 answers the second research question, 'What scaffolding strategies should be used to assist the pedagogy to make Hanzi learning more effective?' In it, I discuss the scaffolding strategies used to assist the activity-based Hanzi teaching pedagogy to make Hanzi learning in terms of grasping its pronunciation, 'What activities are suitable for Hanzi learning in terms of grasping its pronunciation, meaning and form/writing?' In this chapter, I discuss the activities used for the activity-based Hanzi teaching pedagogy to see how and when a specific activity could be used to achieve certain goals of Hanzi teaching (pronunciation, meaning, and form). The last chapter concludes the study.

Chapter 4: Activity-Based Hanzi Teaching

4.0 Introduction

This chapter analyses the data from the perspective of activity-based Hanzi teaching pedagogy. This pedagogy was tried out throughout the two-cycle action research, whereby in Cycle 1, I integrated the activity-based Hanzi teaching with oral language teaching. One of the findings from Cycle 1 is that oral language gave limited help in terms of students' Hanzi learning performance. In Cycle 2, I improved the activity-based Hanzi teaching by focusing on the Hanzi teaching only, so that students could learn Hanzi in a systematic way and had a better understanding of Hanzi. In the first part, the reasons why an activity-based Hanzi teaching was chosen to make Hanzi learnable are discussed. Then, the strengths and weaknesses of the activity-based Hanzi teaching method are identified after testing through the two cycles. The conclusion is drawn in the last section of the chapter.

4.1 Developing an Activity-Based Hanzi Teaching

As was discussed in Chapter 2, the activity-based Hanzi teaching was developed from the popular presentation-based teaching (3Ps) and TBLT. Therefore, it shared some features of both 3Ps and TBLT. The reason for choosing this mixed pedagogy is the uniqueness of Hanzi and the educational context of the school where I taught, along with my personal expertise. First, I analyse the suitability from the view of the school. Here is a description of the school from my reflective journal:

I got my teaching timetable shortly after I visited FPS last week. The students will have my Chinese class weekly on Tuesdays or Wednesdays. According to the timetable, each period of lesson lasts 40 minutes. The school has four terms a year, and each term has 10 weeks. But according to the coordinator, I don't need to visit the school on Week 1 and Week 10 as the school has other plans. That means, for each term, I only have 8 lessons each term, then students will have a term break for 2 weeks. As I only teach for one school year, the number of lessons my students will have from me is about 32.

(Teacher researcher's reflective journal on description of school)

The description above shows that at FPS, the allocated Chinese time was very short, and there was a long interval between the two lessons. By the time they had my Chinese lesson, they might have forgotten what they had learned the week before. Another fact, which was not described in the reflective journal, is that for Year 2, I had 15 students; for Year 5, I had about 25 students. All were nonbackground beginning learners. This means that they were not able to use complicated Chinese language to communicate with each other and express their ideas freely if TBLT was used as a Hanzi pedagogy.

Thus, a redeveloped pedagogy was needed. If we look from a student-centred view, then TBLT was an ideal pedagogy to apply in teaching. The concept 'learning in doing' is embraced by many educators. However, TBLT requires students to actively use their target language to accomplish the tasks, which my students certainly did not have the ability to do. TBLT also originated from communicative language teaching, and it focuses on the students' use of spoken language, which makes it difficult for Hanzi learning.

The 'task' seems very tempting and students will surely be more engaged when they are taking part in the tasks. Thus, tasks should be used in Hanzi learning, too. Students can have many activities to practice Hanzi they learned in the past and meanwhile have fun. Although the 3Ps are thought to be outdated by many communicative language teaching educators, it is still one of the most popular teaching pedagogies in language teaching. According to Skehan (1998), 'it lends itself very neatly to accountability, since it generates clear and tangible goals, precise syllabuses, and a comfortingly itemizable basis for the evaluation of effectiveness' (p. 94).

In this research, there was another reason I developed the 3Ps as part of the pedagogy in application. That is, as a language teacher, I had used this pedagogy in China for more than two years, so I was familiar with the operation of this pedagogy and clear about its strengths and weaknesses. I could use my expertise to improve it through combining it with TBLT. 3Ps teaching has been criticised for its teacher-centred feature as the teacher presents the key language points to the students and then practices it in a controlled way, rather than letting the students practice freely like TBLT. However, for students who do not have much knowledge of Hanzi, it is necessary for the teacher to introduce new Hanzi using different strategies and activities with less teacher-centred intentions. After combining the 3Ps with TBLT, the activity-based Hanzi teaching presents less teacher-centred features with more student-centred activities and improved strategies for student engagement.

4.2 Activity-Based Hanzi Teaching Method

An activity-based Hanzi teaching pedagogy was used throughout this study, but the focus and teaching procedures were different in the two cycles. In Cycle 1, I used an oral language-integrated, activity-based Hanzi teaching method. With this method, I taught Hanzi selected from key sentences. To teach and use the spoken language, I prepared topics such as greetings, colours, numbers, and food. By using the key sentence patterns during the activities, students acquired the pronunciation of Hanzi. Once they became familiar with the pronunciation of those Hanzi, they participated in other activities designed for Hanzi semantic meaning and writing.

This part discusses the strengths and weaknesses of the activity-based Hanzi teaching through analysing the data from my reflective journals, classroom observations, and students' worksheets.

4.2.1 Teaching content for Cycle 1

In Cycle 1, a three-step Hanzi teaching procedure was used for activity-based Hanzi teaching. Step 1 focused on presenting the oral language that has Hanzi in it and practicing the pronunciation; Step 2 focused on presenting Hanzi selected from the oral language using activities, including 'Q&A', chant, YouTube videos, animated Hanzi movies, and so on. Step 3 focused on practicing Hanzi by playing games, through Hanzi writing activities, singing Chinese songs, and individual or group worksheets.

Four lessons with four independent topics were designed for this cycle. The Hanzi selected to be taught were closely related to the target language of the topic. In Lesson 1, my topic was Greetings; thus, my target language was '你好' (Hello!), '早上好' (Good morning), '下午好' (Good afternoon), '我叫。。。' (My name is . . .), and '再见' (Goodbye!). The Hanzi selected to be taught were '你好' (nǐ hǎo/Hello), '我叫 . . .' (wǒ jiào/My name is . . .), '上午' (shàng wǔ/morning), '中午' (zhōng wǔ/noon), and '下午' (xià wǔ/noon).

My original plan was to finish each topic in one period of lesson. However, in real practice, some topics took two periods to finish. They were Lesson 1, Greetings, and Lesson 4, Numbers. To differentiate the lesson periods in my reflective journals, I used Lesson #a or Lesson #b (see Table 4.1).

Table 4.1 Teaching content of Cycle 1

Cycle 1	Topic	Activities	Hanzi Teaching
Lesson 1a/b	Greetings	Role play; Hanzi writing	上,中,下,卡,你,我,好
Lesson 2	Ordering Food	Role play; Hanzi writing	炒(面), 炒(饭), 火 (锅), 米 *Hanzi in brackets were not focused
Lesson 3	Colours That I like	Spinner game; Hanzi writing	红色, 白色
Lesson 4a/b	Numbers	Bingo game; Hanzi writing	一, 二, 三, 四, 五, 六, 七, 八, 九, 十; 元

4.2.2 Findings from Cycle 1

The strengths and weaknesses of the activity-based oral language-integrated Hanzi teaching method can be found from the following data:

I used a chant song called '你好! 你好! 我叫 Tim' as a class activity to consolidate the pronunciation of Hanzi in key sentences of today's topic. The students liked it very much, and by singing this chant song, they can easily pronounce the 6 relevant Hanzi: 你, 好, 我, 叫, 再, 见. It seemed that chant is a good way to help them pronounce and memorise the pronunciation of Hanzi.

(Teacher researcher's reflective journal, Lesson 1a, Cycle 1)

This piece of data shows students liked the chant activity very much. It helped the students to consolidate the oral language, which also helped the learning of Hanzi pronunciation. Therefore, the chant activity is fun and effective in Hanzi teaching.

Both the teacher researcher and the students loved this game. The aim of the game was to help the students recall the colours in Chinese. When they see a colour, they need to say it quickly in Chinese... The students were very engaging in this game, and by the end of the lesson, many of them knew how to say the colours in Chinese. And when they saw the Hanzi, they could recognise about half of them. I think they did a great job. In round 2, most of the students were participating actively because they did not want to fail their group.

(Teacher researcher's reflective journal, Lesson 3, Cycle 1)

This data shows students were very engaged in playing the Spinner game; meanwhile, the games helped them to remember the formation of Hanzi. By comparing these two pieces of data, it seems that activity-based Hanzi learning is a fun and effective way to learn Hanzi. However, it is also worth noticing that even without integrating the oral language, the students could still learn Hanzi well. They learned the pronunciation and the form of Hanzi from those two activities. Oral language-integrated teaching did not seem to play an important role in Hanzi teaching. The following data shows the weaknesses of the oral language-integrated Hanzi teaching:

I have been using the activity-based oral language integrated Hanzi teaching for more than six weeks. I found that Hanzi teaching is different from teaching English vocabulary. Students can learn Hanzi well, even without the help of spoken language. The only benefit of integrating spoken language in Hanzi teaching was that students got familiar with the Hanzi pronunciation when they were practicing their spoken language but integrating the spoken language with Hanzi can be time consuming. That's the reason why I couldn't finish my teaching as planned. Maybe I can separate the oral language teaching with Hanzi teaching, so that I can focus on Hanzi teaching for the whole lesson. What's more, as those Hanzi were selected from oral language, the connection between each Hanzi is very weak. If I can get rid of the interference of the oral language, I can select the Hanzi

in a systematic and logical way; students will know how Hanzi were created.

(Teacher researcher's reflective journal, Lesson 4b, Cycle 1)

The data shows that although oral language helped Hanzi pronunciation, it was time consuming. I spent almost half the time in oral language teaching, which reduced Hanzi learning time. The oral language also limited the selection of Hanzi, which made Hanzi teaching less systematic. Combining spoken language and Hanzi teaching weakened both parts of learning. Students needed more time to consolidate their spoken language as well as Hanzi; given that Hanzi meanings and their pronunciation are less connected than the two in English, we could teach oral language and Hanzi in two separate lessons.

4.2.3 Teaching content for Cycle 2

As the oral language-integrated teaching method has its own limitations, in Cycle 2, my teaching shifted from oral language integrated to Hanzi focused. In this way, students could learn Hanzi in a systematic and logical way. However, the activities were still the key components of the lesson. In this cycle, Hanzi with similar features were grouped together to be taught in the same lesson. In Cycle 1, I found that students actively used their visual literacy to understand Hanzi, so for the first two lessons, I used the pictographic Hanzi as my teaching content. For Lesson 3, I introduced a new category of Hanzi, which required the students to use their active thinking and visual literacy to understand their meaning. Table 4.2 shows the teaching content of Cycle 2.

Table 4.2 Teaching content of Cycle 2

Cycle 2	Topic	Activities	Hanzi Teaching
Lesson 1	Picture the meaning of Hanzi: Pictographic (1)	individual worksheet activity; peer discussion; calligraphy	日,月,山,木,人
Lesson 2	Picture the meaning of Hanzi: Pictographic (2)	watch animated Hanzi cartoon; group discussion; calligraphy	林, 网, 石, 子, 夫
Lesson 3	Think about the meaning of Hanzi: Ideographic	group discussion; peer discussion	人, 从, 众 小, 大, 尖 木, 林, 森
Lesson 4	Revision (pictographic and ideographic Hanzi in the lyrics)	peer discussion; group discussion; sing a Chinese song	田水森工人一大山飞

4.2.4 Findings from Cycle 2

In Cycle 2, a two-step Hanzi teaching procedure was used for activity-based Hanzi teaching. Step 1 focused on presenting Hanzi, selected based on their features and similarities using activities including Q&A, chant, YouTube videos, animated Hanzi movies, and so on. Step 2 focused on practicing Hanzi by playing games, Hanzi writing activities, singing Chinese songs, and individual or group worksheets.

In this cycle, the Hanzi-focused teaching proved to be successful in that it maximised the learning of Hanzi in a short period of time. Students loved how they learned Hanzi this way. Table 4.3 shows a collection of feedback from students' worksheets.

Table 4.3 Feedback from students' worksheets (Lesson 3, Cycle 2)

Today I learnt that Chinese characters that have pictures with it.	Visual
I learnt that Chinese characters can be pictured.	Visual
I thought that characters were easy to draw but now that they are very hard and I also know now that if you put two characters together you get a new character and they sometime character can look like pictures.	Hanzi writing difficult Hanzi formation
Today I learned that Chinese characters are more like pictures and are different to English.	Visual
Chinese characters have evolved over the time. It is a unique way to right [write]. They can sometimes be put together to make a new character and they started off as pictures and become symbols.	Hanzi formation Visual Understanding of Hanzi evolution
I learned that some are like pictures and others way different but rily [really] fun to learn.	Visual Interested (engagement)
Today I learned that if two characters are put together it makes a new character.	Hanzi formation
Today I've found rainforest: yǔ sēn. I've learnt to rest: 休. Chinese characters from the oracle bone look like picture and turned simple.	CCT Hanzi evolution
I learned 7 now [new] characters and to mack [make] now [new] characters is so easy.	Hanzi easy

I learned 9 new Chinese characters and how you can put two characters together to make a new Chinese character. It's fun to understand what they mean as well. Next time I hope I learn more and at the end of the year I will know how to talk in Chinese. Thank you, Mr Tong for teaching us.	Hanzi formation Fun Want to learn more
This week I learnt that ancient Chinese characters look like pictures to match their characters.	Visual Hanzi evolution
I learnt putting two characters together as one word has a new meaning.	Hanzi formation
I have learned that three trees can turn into a forest. I have also learnt new characters. PS: Thank you.	Hanzi formation
I have learnt characters look like picture. I have also learnt that if you put two characters together it makes a new character.	Visual Hanzi formation
Today I learn that Chinese characters look like pictures. One of the Chinese characters looks like a tree & it actually meant tree. I also learn to combine one character and another together.	Visual Hanzi formation
Today I learnt how to draw Chinese characters. Today I learnt how to say Chinese characters. Today I learnt that Chinese characters are pictures.	Visual Hanzi formation

Today I also learnt that if you put two Chinese characters together you get a new Chinese character.	
Today I have learnt that I can mix rain '雨' and forest '林' make rain forest '雨林', or sun	CCT Hanzi formation
'日' moon '月' to make bright '明'.	Engagement (observed from class)
Today I learnt that more the characters I learn they look more like pictures. And you can also put two characters together to make a new one.	Visual Hanzi formation
Today I learnt that having more than one of the same character can be different (meaning).	Hanzi formation
I have learned terrific Chinese characters. Thank you.	Interested (engagement)

The feedback shows that students had a good understanding of how Hanzi were formed after three lessons of learning. This means the Hanzi-focused teaching had a positive effect on students' learning. The data also proves that students tended to use their visual literacy to understand Hanzi.

The students were fully engaged just as I have expected, even those who were reluctant to learn Hanzi also participated actively. Practicing the 6 basic strokes and Hanzi with a writing brush is something they have never done before. As some students said, 'It's so cool!' But this activity took more time than I thought. It took me 20 minutes to teach them how to hold the brush properly.

(Teacher researcher's reflective journal, Lesson 4, Cycle 2)

4.3 Conclusion

This chapter analysed the strengths and weaknesses of activity-based Hanzi teaching. The data proves that activities have a positive effect on students' Hanzi learning. By participating in the activities, students learned the pronunciations, forms, and meanings of Hanzi in a fun and rewarding way. In Cycle 1, I used an activity-based oral language-integrated Hanzi teaching, which proved that oral language-integrated teaching limited students' understanding of Hanzi in a systematic and logical way. A lot of time was also spent teaching oral language rather than focusing on Hanzi itself. Data proves that students can learn Hanzi and oral language separately. In Cycle 2, even without the influence of the oral language, students could still learn Hanzi effectively by taking part in the activities. Thus, the activity-based Hanzi teaching proved to be suitable to be used among the nonbackground beginning learners. However, scaffolding strategies should be used to assist the activity-based Hanzi teaching pedagogy to make Hanzi learnable.

Chapter 5: Scaffolding—Hanzi Teaching Strategies

5.0 Introduction

The use of scaffolding strategies affects the quality of Hanzi learning. If properly used, these can improve learners' engagement and boost their active thinking and understanding of Hanzi. This chapter analyses the data related to the teaching strategies being used in Hanzi teaching and under what circumstances a particular scaffolding strategy should be used to facilitate students' Hanzi learning. According to Scarino and Liddicoat (2009), 'scaffolding can be used at any point of interaction between teachers and students—at the point of providing inputs and explanations, through to modelling, interacting and assessing' (p. 54). In the data analysis, when necessary, some data was analysed from different perspectives of scaffolding strategies. Those strategies could also be closely related to the Hanzi teaching activities, which are discussed separately in Chapter 6. Both strategies and activities aimed at answering the two research questions to make Hanzi learnable.

5.1 Questions, Cues, and Advance Organisers

Understanding and making sense of the meanings of Hanzi require learners' active thinking and engagement. The data in the two-cycle action research reveals that *questions* along with two other techniques: *cueing* and *advance organisers* are important strategies in Hanzi teaching. In Cycle 1, I found that some questioning techniques I used could better help students understand the pictographic or ideographic meanings of Hanzi. In Cycle 2, I identified the types of question that were useful in Hanzi teaching, and through reflecting on my own teaching and reading more literature, I also realised that cues and advanced organisers are important in building the students' concept of Hanzi and consolidating the learned knowledge of Hanzi. By the end of Cycle 2, different types of cue and advanced organiser technique were also identified and proved effective when used at a certain stage of a lesson.

5.1.1 Questions

In the first lesson of Cycle 1, many questions were used to engage the students. When reflecting on the question techniques I employed, most of them could be improved through careful design. However, the data did show that questioning was a powerful technique to

engage students' active thinking to make Hanzi teaching effective, especially in helping them understand the meanings of Hanzi.

5.1.1.1 Data analysis

In Lesson 1, Cycle 1, I taught my students four Hanzi selected from the topic Greetings. They were (1) '上/shàng' as in '上午好/good morning', which means 'up, top, or above'; (2) '中/zhōng' as in '中午好/good noon', which means 'middle or central'; (3) '下/xià' as in '下午好/good afternoon', which means 'down or below'; and (4) '卡/kǎ/to stuck', which is combined by Hanzi '上/shàng' and '下/xià'. For this Hanzi '卡/kǎ', the upper part '上/shàng' means 'up' and the lower part '下/xià' means 'down'; if things cannot go up or go down, then they are 'stuck'. To understand the meanings of those Hanzi, especially for Hanzi '卡/kǎ', it requires students to actively use their thinking skills to make sense of them.

My reflective journal shows how I used questions to promote thinking during my teaching, although it was not a successful one:

[I was going to teach Hanzi '上/shàng', so I drew a horizontal stroke of '上'and started my questioning techniques.]

- Teacher: If this is the earth [I pointed at the horizontal line], and there is a symbol that goes up [I drew the vertical stroke of '上'], what does this '↑'mean? Try to think about the direction.
- Student 1: Morning [someone called out].

 [We just learned '上午好', so he thought '上'means morning.]
- Student 2: Oh, the first one. It's morning? Is that good morning? [The students were thinking about what they had learned just now.]
- Teacher: It's a symbol. It's just like a picture. [I drew an arrow on the vertical line.] Do you have this symbol? It's an . . .?
- Students: Yeah, an arrow.
- Student: Rising up sun. [He was thinking about a picture.]
- Teacher: If this is the 'surface' and this means 'up'. What does that mean?
- Student: [Thinking] Em . . . [Someone was snapping fingers trying to think out the answer.]

• Teacher: [I continue to give hints.] And a little bit line here? [I did not wait for long as I became impatient, so I told them the answer right away.] It means 'up'.

[They seemed to be understanding. I went on and showed them Hanzi '下'.]

• Teacher: [I wrote Hanzi '下'next to '上'.] So what does this one mean?

[This time, many students called out 'down!' before putting up their hands and the answer was unanimous. Once they knew the first answer, they knew what the second one mean.]

(Teacher researcher's reflective journal, Lesson 1, Cycle 1)

The data above shows that I asked many questions during my teaching, and the students were willing to share their understanding of Hanzi. This means they were well engaged, but whether the using of questioning in Hanzi teaching is effective or not depends on the quality of those questions. However, research shows that in many disciplines, the questioning technique used in classes is more effective than in those that do not involve in this technique (Marzano, Pickering, & Pollock, 2001). The students gave many answers to my questions, but they were not the correct ones as I did not ask those questions properly. It was not until the end of Cycle 1 that I realised the importance of asking good questions, and in my reflection, I addressed the importance of using this technique properly to redirect students' thinking:

I didn't realise that asking questions was an important scaffolding strategy for Hanzi teaching until I looked back on my instruction again. When teaching Hanzi '上/shàng', I asked lots of questions which now I consider to be poorly designed and less organised. Actually, I did not design those questions. They were just my immature reaction when the students couldn't get the answer right. If given another chance, I might ask those questions differently. When I reviewed my transcription, I found that students were trying hard to answer my questions accordingly: When I said, 'It's just like a picture', some students were thinking about the rising sun; when I

asked them to think about the 'direction', someone said 'It's morning', because they've just learned that. How could I expect them to think something else?! What's more, I need more patience to wait for their answers. I shouldn't just tell them the answer because I had taken their thinking opportunity away. It was not good for their Hanzi learning. If I continue doing this, they will just wait for my answer and not participate any more. In the next three lessons of Cycle 1, I found that the kids become more engaged if I waited longer.

(Teacher researcher's reflective journal, Cycle 1 Summary)

The data, 'students were trying hard to answer my questions accordingly . . . when I asked them to think about the 'direction', someone said 'It's morning', because they've just learned that', shows that students' answers were actually closely related to my questions. The reason they could not get the answer right was that I did not ask questions properly. When their answers were not right, I should have redirected their thinking using another question that could lead to the correct answer. Unfortunately, I failed to do that. One reason is that I did not predesign my questions when I was preparing my lesson. If only I could improve the quality of those questions, students would be more likely to get the answer right. Therefore, questioning is a good technique in Hanzi teaching, but it requires the teacher to ask questions properly. Some predesigned questions might help improve the quality of questions.

Through reflection, I also realised the importance of allowing proper wait time for the answer. If I had waited longer in that lesson, it is likely that students would benefit more from this strategy. In Section 5.1.1.3, I discuss the proper wait time for Hanzi teaching.

Questioning can also be used for a different purpose in achieving educational goals. This scaffolding strategy can be used in different stages of a lesson for different purposes. This action research shows that questioning at the very beginning of a lesson is effective in reviewing the previous lesson:

'Good morning class! Do you still remember what we have learned last week?' One student said quickly, 'the Chinese numbers'. 'Good, last week we learned how to count in Chinese. Today, we are going to learn to write those numbers in Chinese. Anyone who can count from zero to ten?' One student raised her hand, '0/ling, 1/yī, 2/èr, 3/sān, 4/sì,

5/wŭ, 7/qī . . . 8/bā . . . I don't remember'. 'That's okay, you did a good job. Anyone who can help?' Another student raised his hand, and this time he got all the numbers right with the help of teacher and class. 'Super! Now, let's count together'. The whole class counted from 0 to 10, and most of them did a good job. 'Okay, let's chant'.'

(Teacher researcher's reflective journal, Lesson 4b, Cycle 1)

This piece of data shows using questions to start a lesson helped the students to recall their knowledge of the previous lesson through sharing the answers with other students. Again, students were engaged in this part. This further proves that questioning has a positive effect in improving student engagement, and it could get students prepared for the coming lesson.

5.1.1.2 Suitable questions types in Hanzi teaching

There are different types of question that depend on how we categorise them. They could be open-ended and closed questions, lower cognitive and higher cognitive questions (Fries-Gaither, 2008).

When teaching the students '休/xiū' in Cycle 2, I asked, 'A person leaning on a tree, what could this mean to you?' and 'In what kind of circumstance would you lean on a tree?' Students were very active in answering my questions. And they finally agreed to the answer—taking a rest, which is the correct meaning of this Hanzi.

(Teacher researcher's reflective journal, Lesson 2, Cycle 2)

The excerpt above shows that I used open-ended questions for students to think freely of the possible answers. Due to the pictographic and ideographic nature of Hanzi, open-ended, higher cognitive questions are more frequently used in Hanzi teaching. That is because for pictographic Hanzi, it requires the learner's imagination to picture the Hanzi. I frequently asked questions such as, 'What does this Hanzi look like?' or 'What do you think this Hanzi might be?' For ideographic Hanzi, open-ended questions are also important because this kind of Hanzi requires a lot of active thinking.

However, this does not mean teachers should not ask closed questions. Closed questions could be used to check the learners' understanding, their learning progress while doing the

activities, or the majority's opinion towards an answer. For example, questions like, 'Do you think this Hanzi looks like a tree?', 'Do you agree with his answer?', and 'All good?' were also used in my teaching to facilitate their learning.

5.1.1.3 Questioning techniques in Hanzi teaching

In Lesson 2, Cycle 1, my aim was to teach some names of food in Chinese:

I asked, 'What kind of food do you like to eat?' Some students answered hamburgers. 'Oh, what kind of hamburger do you like to eat?' the teacher researcher continued to ask. Then the questions just went on and on until one student asked, 'Do you have MacDonald's in China?' I realised that the discussion has gone too far and that was not the aim of this question.

I should be more specific when I asked this question, 'What kind of Chinese food do you like?' then the answers would be more focus on the Chinese food and I can teach them how to say those food in Chinese.

(Teacher researcher's reflective journal, Lesson 2, Cycle 1)

'The discussion has gone too far and that was not the aim of this question' shows that my questions could lead the class in a different direction—a direction I had not planned. From the data, we can tell that to achieve desirable educational goals, the principal reason of asking a question is to have a focus. As the teaching time for Chinese language is very limited, no time should be wasted in these less important things.

Another finding is that proper wait time is recommended after a question is asked. That allows the students to have sufficient time to think about their understanding of Hanzi and improve the quality of their answers. The following data was analysed around questioning techniques. When looking into it again, I found wait time to be a key factor when questioning:

- Teacher: If this is the earth [I pointed at the horizontal line], and there is a symbol that goes up [I drew the vertical stroke of '上'], what does this '↑'mean? Try to think about the direction.
- Student 1: Morning [someone called out].

[We just learned '上午好', so he thought '上'means morning.]

- Student 2: Oh, the first one. It's morning? Is that good morning? [The students were thinking about what they had learned just now.]
- Teacher: It's a symbol. It's just like a picture. [I drew an arrow on the vertical line.] Do you have this symbol? It's an . . .?
- Students: Yeah, an arrow.
- Student: Rising up sun. [He was thinking about a picture.]
- Teacher: If this is the 'surface' and this means 'up'. What does that mean?
- Student: [Thinking] Em . . . [Someone was snapping fingers trying to think out the answer.]
- Teacher: [I continue to give hints.] And a little bit line here? [I did not wait for long as I became impatient, so I told them the answer right away.] It means 'up'.

[They seemed to be understanding. I went on and showed them Hanzi \dot{T} .]

• Teacher: [I wrote Hanzi '下'next to '上'.] So what does this one mean?

[This time, many students called out 'down!' before putting up their hands and the answer was unanimous. Once they knew the first answer, they knew what the second one mean.]

(Teacher researcher's reflective journal, Lesson 1, Cycle 1)

As a fairly new teacher, I did not have much experience in considering wait time after asking a question. Instead, I added another question when the students had not had the opportunity to think about the previous one, or I just told them the correct answer straight away. Through reading more literature and reflecting on my teaching, I realised that more time should be given to the students so that they have sufficient time to think and come up with the right answer. Allowing proper wait time gives learners enough time to process the information and organise their thinking.

While waiting, it seems that the whole class is quiet, but lots of thinking is going on in their brains. Research shows that allowing a little more wait time can promote learners' academic

achievement (Fries-Gaither, 2008). Later in my teaching in Cycle 2, I allowed more wait time, and the students tended to provide better answers. This means wait time could be helpful in Hanzi teaching.

So how much wait time is appropriate for maximising learners' learning outcome, which does not waste the precious 40-minute class time? Based on my teaching experience in Cycle 2, for lower cognitive questions, it takes only two to four seconds. For higher cognitive questions, it might take more than four seconds. Sometimes, the whole class kept silent for quite a while until some brave student came up with an answer. The study of Fries-Gaither (2008) agrees with my own finding. She found that the use of wait time depends on what kind of question a teacher asks. For lower cognitive questions, three seconds is most effective in students' achievements, but for higher cognitive questions, it is hard to say how much wait time is proper. She suggested that there might be a causal relationship between different levels of questions. For higher cognitive questions, more wait time might be needed to achieve better understanding of academic issues.

5.1.2 Cues and advance organisers

The cues and advance organisers usually come together with questioning technique. According to Filippone (1998), approximately 80% of teacher-student interactions involve questioning and cueing. In the book Classroom Instruction That Works, Dean et al. (2012) also found questioning, cues, and advance organisers are important techniques in helping students develop understanding, promoting engagement and using their background knowledge to learn new information. Whereas the questioning strategy could be used throughout the lesson, the cues and advance organisers are better used at the beginning of the class. 'Cues are hints to students about the content of an upcoming lesson' (Dean et al., 2012, p. 50), and 'advance organizers are stories, pictures and other introductory materials that set the stage for learning' (Dean et al., 2012, p. 51). Letting the students know what they are going to learn for the lesson helps them to get prepared. In Cycle 1, I did not give explicit cues of the 'big idea' of the lesson, such as what kind of Hanzi they were going to learn or what kind of activities or games they would be playing. At the end of each lesson, when I asked what they had learned that day, the students tended to give some trivial answers, which were not the focus of the lesson. Some students even said, 'I don't remember' or 'I don't know'. Starting from Cycle 2, at the beginning of each lesson, I would first ask students, or tell them myself, about what we had learned in the previous week. Then I would use one to two sentences to tell them what we were going to do in that lesson. Here is part of a lesson I observed and recorded:

Good morning boys and girls. Nǐ hǎo! Are you ready for today's lesson? Okay, first, tell me, what have you learned last week? [Student answered the question.] Good, we learned the numbers last week. Can you count from one to ten? Anyone? [Students answered the question.] Super! Now, today we are going to write those characters [Hanzi] from one to ten. OK?

The students were very active in answering my questions and most of them could count from one to ten. When I said, 'We are going to write those Chinese characters', they seemed very happy. At the end of the lesson, when I asked what they had learned for today's lesson, most of the students knew that they learned how to write Hanzi from one to ten.

(Teacher researcher's reflective journal, Lesson 4b, Cycle 1)

The data above shows how I used questions and cues to 'wake up' their memory on what had learned from the previous lesson and prepare them for the new lesson. The whole process seemed very smooth and students effectively recalled their knowledge of what they had learned before. I also noticed that there may have been some improvement in understanding the 'big idea' of the lesson.

The technique of advance organisers was also being used in my lessons, and these proved to be useful. When introducing the Chinese food, I showed the students a YouTube video about a Western traveller visiting a food street in Beijing and Xi'an. Although some students thought that some food was gross, and I could tell from their facial expression that some of them were a little bit shocked by the bizarre food, they still found it an interesting video. More importantly, they showed interest to learn the names and Hanzi for some typical Chinese foods.

5.2 Feedback

Providing proper feedback is another important finding of this study. Feedback has a critical influence on students' Hanzi learning. When showing students pictographic Hanzi, they may

come up with tens of different answers. The data shows that providing feedback can redirect the students' thinking and lead them towards a better answer, but improper feedback can mislead and confuse the students. Here is a bad example of my feedback, which led to an unsatisfactory result even though the students were well engaged:

I was trying to help the students to figure out the meaning of three indicative Hanzi with pictographic features.

- Teacher: If this is the earth [I pointed at the horizontal line], and there is a symbol that goes up [I drew the vertical stroke of '上'], what does this '↑'mean? Try to think about the direction.
- Student 1: Morning [someone called out].
 [We just learned '上午好', so he thought '上'means morning.]
- Student 2: Oh, the first one. It's morning? Is that good morning? [The students were thinking about what they had learned just now.]
- Teacher: It's a symbol. It's just like a picture. [I drew an arrow on the vertical line.] Do you have this symbol? It's an . . .?
- Students: Yeah, an arrow.
- Student: Rising up sun. [He was thinking about a picture.]
- Teacher: If this is the 'surface' and this means 'up'. What does that mean?
- Student: [Thinking] Em . . . [Someone was snapping fingers trying to think out the answer.]
- Teacher: [I continue to give hints.] And a little bit line here? [I did not wait for long as I became impatient, so I told them the answer right away.] It means 'up'.

[They seemed to be understanding. I went on and showed them Hanzi \T '.]

• Teacher: [I wrote Hanzi '下'next to '上'.] So what does this one mean?

[This time, many students called out 'down!' before putting up their hands and the answer was unanimous. Once they knew the first answer, they knew what the second one mean.]

(Teacher researcher's reflective journal, Lesson 1, Cycle 1)

When I was teaching the Hanzi '上/shàng (up)', I gave the students several hints, which were vague. I asked the students to think about the direction, but the students answered 'morning'. That was because they had just learned 'good morning' in Chinese, and this Hanzi '上/shàng' was appeared in the phrase '上午好/good morning'. Instead of saying 'No, that's not correct', I said something else, which led the students to think towards a different direction, such as an arrow, a surface, or a rising sun. For good feedback, as Hattie and Timperley (2007) proposed, they 'need to be clear, purposeful, meaningful, and compatible with students' prior knowledge and to provide logical connections' (p. 107). In this case, although I wanted to redirect their thinking, I did not give clear feedback explaining why their answers were wrong and which direction they should be thinking about, rather than posing a new question and ignoring the original one. This could confuse the students. To make feedback effective, three kinds of question are suggested to be answered according to Hattie and Timperley (2007): 'Where am I going?', 'How am I going?', and 'Where to next?' (p. 100). They also added, 'to make the feedback effective, teachers need to make appropriate judgments about when, how, and at what level to provide appropriate feedback and to which of the three questions it should be addressed' (p. 100).

If proper feedback was given, students might think differently and go straight to the point:

- Teacher: What does '上/shàng' mean? Think about the direction of something.
- Student 1: Morning [Someone called out].
- Teacher: Good. But 'morning' is not a direction right. It's a word for direction or position. Look at my gesture. Try again, please.
- Student 2: A rising sun?
- Teacher: No. Not a rising sun. But, good try. It's a position of something, could be 'top, middle or bottom'.
- Students: Top.
- Teacher: Good job. '上'means '↑top or above'. How about '下'?

(Teacher researcher's reflective journal, Lesson 1, Cycle 1)

Although this is only an imaginary dialogue from my reflective journal, compared to the actual one, this type of feedback focuses on the key point, combined with body language and offering of optional answers. In my Cycle 2 teaching, I revised my teaching strategies by giving effective feedback. Here is another piece of data, which shows the positive influence on the students' learning outcomes by giving feedback:

When teaching pictographic Hanzi '山', I asked my students, 'What do you think this Hanzi mean?' One student said, 'a crown?' 'It does look like a crown, but remember, this Hanzi was created in ancient China. We didn't have that kind of crown back then. It's something we see in the nature. In the nature, we have trees, rivers and . . .?' 'Oh, mountain', someone called out. 'Good job. It is mountain'.

Similarly, when I was teaching Hanzi ' \Box /rì (sun)'. Many students said it looks like a donut. Because the ancient writing of this Hanzi that I showed them did look like a donut. So I said, 'Yes, it looks like a donut. But did the Chinese people have donut about 2000 years ago?' The students said, 'No'. 'So it can't be a donut. It's something you see from the sky'. 'Stars!' I said, 'Very close. But it looks much bigger and brighter'. 'Oh, the sun!' This time, many students called out. 'Good job. This Hanzi is the sun, "rì", say after me'.

(Teacher researcher's reflective journal, Lesson 1, Cycle 2)

The use of feedback from the data above shows that the teaching went on smoothly. Compared to the data from Cycle 1, I spent less time to get correct answers from the students. When the students provided good answers, even they were not correct, I still gave them positive feedback and asked them to modify their answers by giving some hints. When the students were working hard to get the right answer, the teacher's feedback should be encouraging and sincere, no matter whether it is a good or bad answer. Cotton (2001) found that feedback such as praise that is sincere and credible has a positive effective on student achievement, but she also mentioned that praise should be used sparingly and should be directly related to the response. I also found that giving positive feedback when their

responses were correct helped their Hanzi learning enthusiasm. They were more likely to participate in the future.

When providing feedback, teachers can say his/her answer is right or wrong, but they should not show disappointment at their answers. Instead, they need to redirect their thinking by giving feedback. According to Hattie and Timperley (2007), if feedback is directed at the right level, it can assist students' comprehension and engagement, or develop effective learning strategies.

5.3 Engaging Learners' Prior Knowledge

In their Hanzi learning, students actively used their prior knowledge to help themselves understand and make sense of Hanzi meaning. The data reveals that actively engaging learners' prior knowledge helped their Hanzi learning. From the data collected, I identified two kinds of prior knowledge that is essential for young nonbackground beginning learners. They are students' visual literacy and their first language (L1) that can be transferred in second language (L2) learning. It is noticeable that the subjects they had taken at school such as mathematics, art, and reading could also be used to some positive effect on their Hanzi learning.

5.3.1 Visual literacy

According to my observation of the teaching practice during the lesson, when I showed my students new Hanzi on the board, they would always start a comment with 'It looks like a . . .'. That was when I realised how they thought about Hanzi. The *Australian Professional Standard for Teachers* (Australian Institute for Teaching and School Leadership, 2011) says, 'Know your students and know how they learn', which is really important. By understanding how they learn made me realise the importance of engaging learners' visual literacy to make Hanzi learnable. The following data reveals students' use of their visual literacy and how students' visual literacy could help their Hanzi learning.

Before watching the animated Hanzi cartoon movie, I asked my students to guess the meanings of some pictographic Hanzi, which would later appear in the movie. When I showed them this Hanzi 'Movie (net)', they offered different answers that were visually relate to this Hanzi. It means their prior knowledge of the visual literacy had a considerable influence on their Hanzi learning. One interesting

answer was that one student said this Hanzi looked like a dead person, and many students agreed with his answer. When I asked why, another student told me that those two crosses (XX) represented the closing eyes of a dead person; the outside box represented a person's head. He even came up and drew an emoji of a dead person.

And this wasn't the end of the story. Later, another student said it looked like 'Ned Kelly', the Australian bushranger. I was really surprised at that time, because I had seen paintings of Ned Kelly by Sidney Nolan recently at the gallery. When they said the name Ned Kelly, I immediately related the painting to this Hanzi '网'. I was not sure if the images of Ned Kelly were known to most of the Year 5 students in Australia, but before that I assumed that most students wouldn't have known him. I asked why they thought it was Ned Kelly, and where did they learn from. They told me that they had done some readings of Ned Kelly before and they also appreciated some paintings by Sidney Nolan during the class. That means they used knowledge learned from other courses into Hanzi learning. However, no matter how good their answers were, they did not give the correct answer. That's why questioning and giving feedback to redirect the answer is important.

(Teacher researcher's reflective journal, Lesson 2, Cycle 2)

The data above shows that students were using their visual literacy to make sense of the 'image' of Hanzi 'M/wăng (net)'. In the first case, the students related it to the emoji they frequently saw or used when sending text messages using electronical devices. This kind of visual literacy came from their life experience as a netizen in the digital age. In the second case, this visual knowledge came from the books they read and the paintings they saw while attending school. The stories about Ned Kelly may not be universally taught at schools, and it might be on some teachers' preference lists. The argument made is students' prior literacy could affect students' learning of Hanzi positively. Another piece of data, which is discussed in Section 6.1.2, also proves this finding. When the classroom teacher had taught them something about the Chinese writing brush a couple of days before my Chinese class, the

students became very interested and engaged in talking about it. When students came to my class, they brought their knowledge gained from other disciplines into my class. In this case, it was their visual literacy. Table 5.1 shows how students used their visual literacy and other knowledge to understand the meanings of Hanzi.

Table 5.1 Data 2: Students' use of their visual literacy

Ancient Chinese Writings	Modern Chinese Writings	Students' Answer	Actual Meaning
0	日	sun, an eye, a donut, target, a drum, a bouncing bed, a ball, a clock, a wheel, a burger, a mat	SUN
D	月	moon, a banana, a rotated hill	MOON
M	Щ	a crown, mountain, sharp teeth, bumps	MOUNTAIN
! \$\;	水	a lizard, a river (lake), a road, water, a worm, a car	WATER
£ :	न् <u>ञ</u>	rain and cloud (upper part—cloud, lower part—rain drops), a paw, a prison gate/window, a drum	RAIN
*	木	a tree, a tree (with no leaves, or cut off), branches, a log, a stick bug	TREE
ነ	人	a stick, a branch, a walking stick, a man [person], a chair	PERSON
#	女	a snake/cobra, a person, a lizard	WOMAN

Ø	目	an eye, a Fidget spinner, a rubber case, Band-Aid	EYE
T T	马	a dog, a tiger, a lion, a donkey, a horse, a piggy	HORSE
\$	戽	a bird (parrot, penguin, chicken), a lizard	BIRD
A	龙	a cat, a dragon, a tiger	DRAGON

Table 5.1 was generated from the oral answers of Year 5 students when I was checking their answers after they had finished their worksheets. The data shows that students actively used their visual knowledge to picture the meaning of the Hanzi. Among all the answers, there was always a certain number of students who could get the answers right. This indicates that pictographic Hanzi can be easily understood by the young nonbackground beginning learners.

It is also worth noticing that students came up with many answers that were closely related to their daily life and even had a strong Australian feature. For example, the answer 'lizard' frequently appeared among those answers. It was found in the Hanzi for water (水/shuǐ), woman (女/nǚ), and bird (乌/niǎo). This is because lizard is a typical animal they see in their daily lives. One answer was related to the toy they were playing with recently. I remember, at that time, a kind of spinner was very popular among the students. Many were playing even during the class; no wonder some students came up with the answer of 'Fidget spinner'. Other visual answers, such as donut and target logo, also show that Hanzi learning could be affected by their prior knowledge of food, store logos, nature, and cartoon movies in their daily lives.

Another finding from the data above is that different types of writing affected their understanding of Hanzi. Comparing ancient Chinese writing with modern Chinese writing, this research found that ancient Chinese Hanzi were much easier for students to view and make sense of, because the shape of ancient Hanzi were closer to the actual objects they

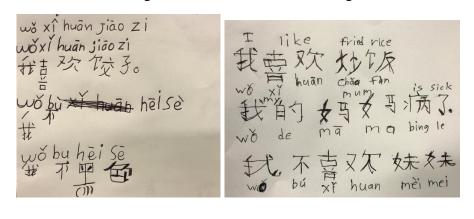
represent. This means that when teaching modern simplified Hanzi, to make it more understandable, it is recommended to put the ancient writing next to it so that students can use their visual knowledge to get the correct answer easily. Similarly, another piece of data shows how different typefaces could affect students' learning of Hanzi:

During my teaching practice, I found that typefaces could affect students' Hanzi learning. When designing students' worksheets or preparing PowerPoint for the lesson, I didn't pay special attention to the fonts I chose. For English language, I would normally pick *Times New Roman*; and for the Chinese, I would use 宋体/sòng tǐ. Until one day, when I asked my students to copy the Hanzi on the board, I realised that to their mind, those Hanzi were pictures. They were trying to duplicate those Hanzi the same as the typeface. It's just like you are supposed to use your handwriting to copy English words, but instead you used the *Times New Roman* typeface. By looking at their writing simply made me laugh, and that made me realise that for non-background beginning learners, the typeface of Hanzi matters.

(Teacher researcher's reflective journal, Cycle 1 Summary)

Figure 5.1 shows some pictures taken from students' worksheets:

Figure 5.1 Students' Hanzi writing



Sample A Sample B

Notes: Sample A shows that student was trying to mimic the typeface of 宋体/sòng tǐ which has some special effects compared to the usual handwriting. The last three Hanzi '不黑色' were most obvious; sample

B shows that a student was 'drawing' Hanzi. Some strokes were overwritten many times.

(Students' worksheets from Lesson 2, Cycle 1)

By testing out different typefaces, I found that teacher's handwriting and 楷体/kǎi tǐ [a typeface] were the most suitable typeface to be used in Hanzi teaching. When the students were copying Hanzi, their accuracy of writing varied based on the different typefaces they were copying from. By using 楷体/kǎi tǐ, the students were more likely to write Hanzi accurately and beautifully. There is no significant difference between copying Hanzi from teacher's handwriting or from 楷体/kǎi tǐ. 楷体/kǎi tǐ is also suitable in teaching the 6 basic strokes because it is easy to identify the strokes from this typeface (see example below). 宋体/song tǐ, which is a widely used typeface, is not recommended in L2 Hanzi teaching, as the special effects of this typeface mislead the students. When copying Hanzi from this typeface, their accuracy of writing dropped significantly.

(Teacher researcher's reflective journal, Cycle 2 Summary)

Figure 5.2 shows how typefaces could influence students' Hanzi writing.

Figure 5.2 Examples of the same worksheet with different typefaces (Upper one typeface: 楷体/kǎi tǐ, lower one typeface: 黑体/hēi tǐ)

Activity: Can you find the strokes mentioned above? Circle it, overwrite it using a colour pen or point it out anyway you like Share your answer with your mates!		
Hanzi	English	
笔	Pen	
墨	Ink	
纸	Paper	
书法	Calligraphy	

.		
Activity: Can you find the strokes mentioned above? Circle it, overwrite it using a colour pen or		
point it out anyway you like Share your answer with your mates!		
Hanzi	English	
笔	Pen	
墨	Ink	
纸	Paper	
书法	Calligraphy	

(Students' worksheets from Lesson 2, Cycle 2)

From the data, we can see that L2 learners see typefaces differently. They did not know what the differences between typefaces were because their knowledge of the Hanzi writing was quite limited. This means that choosing proper Hanzi typeface is important for nonbackground beginning learners. It might also be useful to tell the students in advance that the written form of the Hanzi is different from the printed one, just like English. So that they do not mimic the typeface; rather, they need to use the basic strokes to write Hanzi to improve the accuracy. It also tells us from another perspective that teaching the basic strokes is important in Hanzi teaching.

5.3.2 Language transfer

Hanzi learning is not just about knowing its forms and meanings; pronunciation also counts. When learning Hanzi, language transfer occurs frequently, from both its forms and pronunciation. I found that students wrote Hanzi just as they wrote the English alphabet

sometimes, especially when the strokes of Hanzi were not too complicated and parts of Hanzi were similar to the alphabet. Most of the transfer was positive if we lower the judging standard of Hanzi accuracy. However, for the pronunciation transfer, it has both positive and negative influences. Sometimes, pronunciations they mistakenly thought were the same as English sounds were quite different to me. As language transfer occurs naturally, I did not have much control over it. The best way is to maximise positive transfer and try to avoid negative transfer.

5.3.2.1 Hanzi pronunciation transfer

A learner's first language (L1) has both positive and negative effects on students' learning of Hanzi pronunciation. If properly used, it can help their Hanzi pronunciation. Here is the related data about this finding:

My focus of today's lesson was to teach my students to say some fruit names such as apple, pear and banana in Chinese. It seemed that students were less engaged and were distracted in today's lesson. One of the reasons is that some of these fruit names were difficult to pronounce, so I repeated many times hoping they could remember it. But the learning outcome was unsatisfying. Even though, we repeated many times for each item. The students still cannot recall the pronunciation. That means repetition did not really help them to memorise Hanzi pronunciation. However, still there were some pronunciations that they could pick up quite easily, even without me telling them how to say it. If I divided the pronunciations from those could be pronounced easily or difficultly into two groups, they are as follow [see Table 5.2]:

Table 5.2 Two groups of Hanzi pronunciation

Easy to be pronounced and recalled in BOLD	Difficult to pronounce and to be recalled in BOLD
Pear/ lí	banana/xiāng jiāo
strawberry/căo méi *cao was	watermelon/xī guā
mispronounced by many students	hotpot/ huŏ guō
tea/ chá	dumplings/ jiǎo zī
stir-fried noodles/chǎo miàn	coke/kĕ lè (easy to pronounce but difficult to
stir-fried rice/ m ĭfàn	recall)

One of my findings is that the pronunciations that are close to their first language (mostly English) are easier to be pronounced and recalled. When they looked at the Pinyin, they could easily follow the phonetic rules of English to pronounce it. The Pinyin for '梨/lí', '炒/chǎo', '茶/chá', '莓/méi' were easy to pronounce, but '香/xiāng', '西/xī' and '绿/lǜ' were difficult to be pronounced. Other Hanzi, such as '草/cǎo' (tsao), which they were confident to say, was mispronounced as 'kao'. But if I cover the Pinyin for this Hanzi and asked them to say after me, they could actually pronounce it correctly by mimic my pronunciation. That means Pinyin is not always helpful in their learning. If Pinyin was not shown, learners could do much better by 'trusting their own hearing'.

(Teacher researcher's reflective journal, Lesson 2, Cycle 1)

The data above shows that students naturally applied the phonetic rules of English to pronounce Hanzi when they saw Chinese Pinyin. In many cases, they could get the pronunciations correct because the rules did apply to Pinyin. Shatz (2017) also identified this kind of positive transfer. He found that positive linguistic transfer occurs when the relevant unit or structure of L1 and L2 is the same. However, in some cases, it can result in wrong language production, because the L1 phonetic rules do not fit in with Pinyin. In the data, the first Hanzi, strawberry '草/cǎo', was mispronounced by students as 'cow', but the correct

pronunciation is 'tsao'. That is because in English language, the letter 'c' is usually pronounced as /k/, as in candy, for example; whereas in the Chinese Pinyin system, 'c' is usually pronounced as 'ts'. When this happens, according to the data, it is recommended that the teacher ask the students to temporarily ignore the Pinyin and listen to the teacher's pronunciation and then say after the teacher. It is likely that young learners can pronounce it well without the negative influence of L1 and Pinyin.

Another finding from this piece of data is that loanwords from Chinese can be easily pronounced. In English language, words such as Kungfu, tofu, Ying, and Yang are loanwords from Chinese language, so their pronunciation is very close to the Chinese language. However, some loanwords were borrowed from Cantonese, so their pronunciation could be different from Standard Chinese. The data shows that 'chǎo miàn/chow mein' could be easily pronounced by the students, because it is a loanword from Chinese language. Similarly, Chinese language borrowed many words from English in the last hundred years; words such as '悉尼/xī ní (Sydney)', '墨尔本/mò ér běn (Melbourne)', '沙发/shā fā (sofa)', '引擎/yǐn qíng (engine)' might be easily learned by the students.

When teaching my students how to pronounce the colour green '绿色/lǜ sè', they just couldn't get it right. Most students would mispronounce it as 'loosir'. For the colour purple '紫色/zǐsè', they could say 'zai-sir'; for yellow '黄色/huáng sè', they would say 'hang-sir'. . . however, for the rest of colours, they could say it even without my teaching: 红色/hóng sè; 白色/bái sè; 蓝色/lán sè; 黑色/hēi sè; 粉红色/fēn hóng sè; 橙色/chéng sè.

(Teacher researcher's reflective journal, Lesson 2, Cycle 1)

This data further proves that students' L1 can affect their L2 pronunciation. Students naturally transferred their L1 knowledge to L2 (Hanzi pronunciation), but as the phonetic rules of Pinyin are different, sometimes, it may cause negative transfer. However, there is positive transfer, too. The data shows that those Hanzi that have pronunciations (Pinyin) close to learners' first language are much easier to pronounce and can be easily remembered. If students' language transfer could be properly used by the teacher, making full use of positive transfer and avoiding use of negative transfer, it should be a good scaffolding strategy to teach Hanzi pronunciation.

5.3.2.2 Hanzi writing transfer

Although the writings of Chinese and English are very different, the data reveals that when writing Hanzi, students transferred their writing habits to Hanzi writing. Table 5.3 shows how students' writing habits of L1 transferred to L2 writing:

Table 5.3 Classroom observation field notes

Research question(s): What scaffolding strategies should be used in Hanzi teaching?

Date of observation: <u>19-20 September</u> Time frame: <u>8-10 minutes in each class</u>

Location of observation: Year 2 & 5 classroom, FPS

Who are the foci of the observation? <u>Students' Hanzi writing performance</u>

Activities: <u>Hanzi writing and discussion</u>

Purpose of observation: Observe their Hanzi writing behaviours

How does the observation reflect what I want to know? <u>Their writing behaviours help me to identify proper scaffolding strategies.</u>

What is important here? Writing sequence, accuracy etc.

What would I want to focus on more closely if/when I return to this setting? <u>The connection</u> between their English writing and Hanzi writing.

Stroke Writing Checklist	Tick or Cross	Descriptive Field Notes	Reflective Field Notes
Stays on task	√	1. Horizontal line and	There is no difficulty in
Is able to write 'heng'?	√	vertical line were easy to write; unanimous	writing horizontal line and vertical line. The
Is able to write 'shu'?		2. '□' various ways to	writing is the same as
Is able to write 'pie'?	×/√	write	English. Students were not comfortable writing
Is able to write 'na'?	×/√	3. Tick: curved tick, like	left-falling stroke and
Is able to write 'dian'?	√	English writing	right-falling stroke as

English writing; for the Chinese tick 'ti', it was supposed to be a sharp tick, but students did it in a soft and curved way, just like the way they wrote j, t, k, l etc. They wrote some parts quickly and they said it just like English alphabets. e.g. 'I /hong'—they said there was an 'I' in this Hanzi. Similarly, they identified small parts in Hanzi that looked like 'capital H, E and lowered case j'.
(

5.4 Modelling

In teaching Hanzi writing and pronunciation, modelling was a frequent strategy I used. As is mentioned in Section 5.3.2, students sometimes mispronounced Chinese Pinyin as it looked like English spelling. It is important for the teacher to set an example and pronounce it first, so that students may notice the difference between their mispronunciation and the correct one. In Hanzi writing, modelling is even more important. Table 5.4 shows the importance of this strategy.

Table 5.4 Field notes on the use of modelling

Student Reflection Worksheet In week A, when I was teaching those Hanzi (Chinese numbers from 1–10), I asked my students to observe my writing first. Then, I asked them to go back to their seats and follow my stroke writing step by step. It turned out that their writing was very good. Later, I asked them to do it all by themselves. In week B, to reinforce their Hanzi writing, I asked my students to copy those same Hanzi on their worksheets. But, this time, their writing was not as good as last week's. One major reason was because I did not model this time, so they were on their own. Some of them made a few mistakes in writing those Hanzi and many used a different stroke order. However, I don't think students should always do as I do. They should be given a chance to write independently, even their final production was not as good as last week's. But this does show that modelling has a positive effect in improving

The data above shows that modelling has a positive effect on students' Hanzi writing. When the teacher modelled, students tended to have better writing performance. It is recommended that teachers set a model at the beginning of the teaching, so that students have a better idea of how to write those Hanzi. However, that does not mean that they will always remember

stage of writing.

their Hanzi writing. Especially at their beginning

the correct writing steps. When necessary, a repeated modelling process should be used to reinforce their memory, but students should also be encouraged to write independently.

5.5 Peer Learning

Peer learning is another scaffolding strategy found effective in Hanzi teaching. It is 'an educational practice in which students interact with each other to attain educational goals' (Donnell & King, 1999, p. 3). In this study, peer learning refers to peer discussion involving two students only.

Peer discussion was used in pictographic Hanzi teaching when the students were asked to guess the possible meaning of the frequently used pictographic-originated Hanzi. The strategy proved that more possible answers came up through peer discussion. However, some data shows peer learning does not contribution to improving the accuracy of the answers. A pictographic Hanzi-related worksheet was predesigned for use in a peer discussion activity. The aim was to let the students figure out the meaning of the pictographic Hanzi themselves. In my teaching, I found that peer learning was effective in reviewing the lesson, but when learning Hanzi that requires lots of prior knowledge on Chinese context, peer learning seemed less helpful.

Here is a reflective journal about this lesson:

After showing some examples of the pictographic Hanzi written in the oracle bones, I handed out a work sheet to let the students guess the meaning of those Hanzi by using their creative and critical thinking skill and peer discussion. The students were asked to write down the answers individually first. Then they share the answers with their peers. When they came across different answers towards a particular Hanzi, they need to reason each other and write down the final answer they believed to be true. From their work sheet, I found that after discussion, they came up with more answers. But I was surprised to see that many students had the answers right before discussion, but after that they changed the correct answers into a different one. By comparing the accuracy of the answers before and after discussion, there is no significant difference, which means peer discussion did

little help in helping students understanding the meaning of pictographic Hanzi if the teacher was not involved in the discussion.

(Teacher researcher's reflective journal, Lesson 1, Cycle 2)

Peer discussion improves learning outcomes in some ways (Boud, 2001). However, in this case, peer discussion seemed to be less effective, at least in the short term. By reviewing the data collected form the students' worksheets and my observation notes, I found the reason students did not benefit from peer discussion. The pictographic Hanzi was created more than two thousand years ago in China. Based on their limited prior knowledge or conception of Chinese Hanzi and China, it was very difficult for nonbackground students who live in a Western country to trace ancient Chinese thinking. Their understanding of the Hanzi was based on their current knowledge. Even if they discussed it with their peers, they are still less likely to get the answers right as all of them had limited knowledge because of their life experience and cultural background.

To improve the effect of Hanzi learning through peer discussion, I designed a different worksheet for Lesson 4, Cycle 2, Chinese song: Our Fields. The task was for them to find the learned pictographic Hanzi through peer discussion rather than discuss about something that is new. The worksheet was conducted individually and then followed with a peer discussion. By observing and checking their answers on the worksheets, peer learning seemed to work well in this design. Students circled more learned Hanzi after peer discussion, which means peer discussion helped Hanzi learning in this case. Here is my reflective journal about this activity:

Unlike last time's peer discussion, today's discussion was based on what they have learned before, something they can use their prior knowledge to answer, not something that they are not familiar with in their real life. The worksheet was about the lyrics of a Chinese song. The students were to circle the Hanzi they have already known, or they thought they knew even not learned. During the first five minutes, the students went through the lyrics and circled the Hanzi they thought they knew. Then, they work in peers to check their answers and add on more Hanzi if they could after discussion. The result turned out to be very good. They found lots Hanzi they have learned

before and most of them could get their meanings right. It was obvious that each of them benefited from peer discussion. After that, the teacher led the students to share their answers among the whole class, which was also good.

(Teacher researcher's reflective journal, Lesson 4, Cycle 2)

The data suggests that in Hanzi teaching, peer learning is effective only when students have a certain degree of understanding of the task they are going to discuss, for example, reviewing the learned Hanzi through discussion. If the students do not have proper background knowledge about the task, peer discussion will not help them to get the task done, but they may come up with more ideas related to the task.

5.6 Conclusion

This chapter analysed the data related to scaffolding strategies in Hanzi teaching. It indicated that if properly used, scaffolding strategies have positive effects on students' Hanzi learning. By using those strategies, teachers may ease the difficulty of Hanzi learning, improve students' engagement during the lesson, and help students better understand the Hanzi in a less pressured way. Due to the nature of Hanzi, teachers should make full use of learners' visual literacy to make sense of the meanings of Hanzi. Language transfer can have both positive and negative effects on Hanzi learning. What can be done is to minimise the negative effects by making explicit explanations and adjusting their learning mistakes. Other strategies such as questioning, giving feedback, and modelling were also found useful in assisting students' active thinking, building up their confidence, and enhancing their learning interest. Peer learning is only helpful when students already have a certain amount of knowledge about Hanzi; otherwise, it is less likely to work if the students have no knowledge of the related task at all.

Chapter 6: Hanzi Teaching Activities

6.0 Introduction

This chapter analyses the data related to the activities in Hanzi learning. Different activities were investigated in Hanzi learning. Specifically, activities were investigated in practicing Hanzi writing, Hanzi pronunciation, Hanzi memorising and recognising, and Hanzi and Pinyin combined learning.

6.1 Hanzi Writing

Practice makes perfect. Learners will not be able to write Hanzi without practicing, no matter whether they are native Chinese learners or nonbackground beginning learners. The difference lies in what strategies and activities we use to teach. To be able to recall and write the correct form of Hanzi, activities were undertaken throughout this two-cycle action research. By experimenting and reflecting on the methods and procedures, effective and 'fun' activities of Hanzi writing were developed.

6.1.1 Shukong

Shukong (书室) is a traditional and economic way of practicing the six basic strokes and Hanzi writing order. Teachers in China use this activity a lot when teaching young Chinese students how to write Hanzi. In the action research, I found that Shukong could also be used to teach nonbackground beginning learners. The benefits and effectiveness of this writing activity can be found in the data below.

[In this reflective journal, I reflected on the benefits of using Shukong when I was teaching my students how to write.]

After I had taught them how to pronounce them, I used Shukong to teach Hanzi writing. I reached out my index finger first and asked my students to do so as well. They easily reached out their index fingers too. I asked them to follow my lead and do the writing in the air. I turned my back to them, so they could do exactly as I do. S: 'OK. Now let's write those Hanzi in the air. Follow me and pay attention to the stroke order'. I occasionally looked back, and I found that everyone reached out their fingers and they were doing fine. I could tell they were very engaged. When I was modelling, I pronounced the

Hanzi once after finishing writing. The students did this too. I think it can reinforce their memory of the pronunciation while they were writing.

(Teacher researcher's reflective journal, Lesson 2 Cycle 1)

From the data above, we can tell that Shukong is an easy and manageable activity. When I asked the students to reach out their fingers, they did so easily. It means the activity was quite manageable and easily understood, and the instruction was simple, too. It did not take long for the students to get ready for the writing activity.

From the students' full participation, we can tell that they were physically well engaged. It is very likely that they were emotionally engaged, too.

I found that students were willing to write Hanzi using Shukong. They were not shy at doing this at all. When I had modelled first, I asked them to do it by themselves. And I took some notes while observing their writing. I did not see anyone who was too shy to do this activity. And everyone was confident in what they were writing, even though they made mistakes and slowed down a little bit during the writing sometimes. But most could correct it quickly and went on. Only a few students couldn't do it for some complicated Hanzi. I asked them to ask their peers and all were willing to seek help.

Table 6.1 shows an observation note of students' performance when doing the Shukong activity.

Table 6.1 Observation notes of Shukong activity

Child: whole class Grade: Year 2 & 5 Date: 12/09 Observed Setting: individual activity Time Behavioural Notes Correct writing order/ numbers observed engagement/numbers observed 10.45-First time: 3/5 15/15 (everyone reached Students were doing 10.47 out their finger and better with Hanzi with Second time: 4/5 fewer strokes. When a wrote); one student (Year 2) Total: 7/10 yawned and kept writing Hanzi has many strokes, they were more likely to make mistakes. 2.30-2.33 First time: 4/5 25/25 (some students Year 5 did quicker than quickly, finished and Year 2. And their (Year 5) Second time: 5/5 someone still accuracy is higher. was Total: 9/10 writing when I told them to stop)

This piece of data further proves that this activity can engage the students, behaviourally. Although it cannot be certain that all of them liked this activity, based on my personal experience during the teaching, most of them were willing to use this way to practice Hanzi. There was no significant age difference in the performance of Hanzi writing. Both Year 2 and Year 5 were well engaged in the activity. One of the possible reasons is that this activity did not take long or was not frequently repeated (it usually took fewer than four minutes). However, the data does show that the older students tended to have a higher accuracy of Hanzi writing in terms of the stroke orders, and they finished this activity quicker than Year 2 students.

The observation notes also show that Hanzi with fewer strokes were easier for students to remember the writing order, and they were confident in what they were doing. When they made mistakes, they corrected it by rewriting it quickly. Some students were able to seek help either from the teacher or from their peers. As it was not difficult, they got helped from peers

easily. Judging from their behaviours and facial expressions, they felt comfortable when asking their friends for help.

The following benefits of Shukong activity can be generated from the data above:

- 1. Shukong makes Hanzi writing much easier, and students become less stressed. Some students find Hanzi writing difficult because they do not know how and where to start. By following the teacher's instruction and demonstration, the students could easily catch up with each step and they need not worry about not being able to do it properly. They do as the teacher does and can always peer check if they are not sure whether they are doing it correctly or not.
- 2. Shukong can draw young learners' attention and keep them focused. One finger engages both their mind and body, and even their mouth. Young students can easily get distracted by other things. I found that Shukong was a good way to 'hook' their attention, even the naughty ones. When the students were writing with their fingers, they needed to sit still and pay attention to the teacher. To reinforce the Hanzi pronunciation, students had to say it aloud after they finished writing.
- 3. Shukong reinforces their memory of Hanzi strokes and writing order. Although no Hanzi was written on the paper, by writing in the air alone, it helped reinforce their memory. I found that after doing Shukong, more students could write the Hanzi in stroke order than before. Although no evidence can prove it, I think Shukong also has a positive effect on their muscle memory, just like playing a piano or typing.

Finally, five steps of Shukong procedures were generated through my observation and reflection during my action research:

- 1. Before writing Hanzi, the students had to know the meaning and the pronunciation of it. Otherwise, Shukong becomes meaningless.
- 2. Ask the students to sit straight and not bend their backs.
- 3. Ask the students to show the teacher their fingers and move around in the air. The teacher needs to make sure that everyone is paying attention. If someone is not showing his/her finger, the teacher will know that he/she is absent minded. It is a good way to check their readiness.

- 4. The teacher demonstrates each step and the students follow the teacher's lead. Say the stroke name while writing. When finished writing, read the Hanzi aloud.
- 5. Ask the students to rewrite it by themselves, and the teacher observes.

The first to third steps prepare the students to get ready. It helps to draw their attention. The fourth step lowers learners' writing difficulty through modelling. The final step consolidates their memory and lets the teacher check their performance.

6.1.2 Calligraphy writing

Shukong is an interesting activity for practicing Hanzi writing and stroke orders. It is a 'hop on hop off' activity that does not require preparation of the material, and teachers can start and end it whenever they feel necessary. However, we also need real practice with pens and paper. One reason is that Shukong is only a simulation of writing; we need to let the students use a real pen to practice Hanzi as we know that driving a car in virtual reality is different from driving in the real world. We can use Shukong to build up the basic knowledge of writing and then put it into practice. Learning to write on paper is necessary, but sometimes, copying Hanzi several times could be boring and meaningless. At first, the students were keen to write, but a few weeks later, they became less passionate. Some students became reluctant to write. Introducing a cultural activity to practice Hanzi makes Hanzi learning more interesting. The data below shows how this activity was carried out, how the students were engaged in this activity, and whether this activity was effective or not.

I found that the students were interested in ancient Chinese writing and the writing tools. At the beginning of today's lesson. The Year 2 students asked me, 'Do Chinese use something made of bamboo to write?' I thought they were talking about '竹简', the ancient writing book that was made of bamboo. Later I found out that they were talking about the writing brush. 'Yes, the Chinese use the writing brush to write Hanzi, because back then modern pens and pencils hadn't been invented yet. The writing brush was the best tool to write'. 'Does [different] writing brush has a name?' 'Yes, there are a variety of writing brush with different sizes and materials'. I didn't have the writing brushes with me. So I went to YouTube and found a video.

They watched it attentively. When I said, 'Maybe next time we can use a writing brush to practice Hanzi writing', the students showed great interest.

(Teacher researcher's reflective journal, Lesson 4, Cycle 1)

During the lesson, students asked a number of questions about the Chinese writing brush, and this indicates their curiosity about this cultural practice. This curiosity also came from their previous learning experience. The classroom teacher had introduced them to the writing brush in their art class. They showed strong interest in knowing more about the Chinese writing tool and calligraphy. People are naturally curious. When we see something new, something that is different to our daily lives, we become curious and want to explore it (Willingham, 2009). As Yuan (2011) said, 'Curiosity leads to interest, and interest can be seen as a motivational tool for stimulating students' learning' (p. 20).

In Cycle 2, this new way of Hanzi writing was experimented by me. Here is a detailed observation and reflection of the activity:

My Chinese colleague brought me 25 writing brushes from China which made Hanzi writing possible. The students were fully engaged just as I have expected, even those who were reluctant to learn Hanzi also participated actively. Practicing the 6 basic strokes and Hanzi with a writing brush is something they have never done before. As some students said, 'It's so cool!' But this activity took more time than I thought. It took me 20 minutes to teach them how to hold the brush properly. But more than half of them still couldn't hold it correctly. But this did not affect their enthusiasm. My initial lesson plan was to finish this activity in 40 minutes. But actually, it took longer. Teaching the students how to hold a writing brush is time consuming. It's just like teaching holding a pencil when we first learned to write. But it was a good experience for the non-background beginning learners. For them, holding a pen correctly or not does not bother them at all. What is important is to let the students experience

something new; something that is different to their usual world. As long as they enjoyed doing it, they learned from it too.

(Teacher researcher's reflective journal, Lesson 1, Cycle 2)

The data shows that students were fully engaged in this activity. However, the effectiveness of Hanzi learning is unknown. From the data, we can see that this activity was time consuming. It took a long time to get the students prepared to start writing Hanzi with a writing brush. That is because the students had no experience in holding a brush. However, I believe one criteria of judging whether this activity is effective or not is whether the students enjoyed doing it or not.

Here are the teaching procedures to maximise the learning of Hanzi through this activity:

To begin this activity, I first let the students watched a short video about an artist writing Chinese calligraphy in Art Gallery of New South Wales. The students were very impressed by the video. And they liked the artistic way this artist was moving her wrist. It was a great cultural experience to them. I explained to them, 'Calligraphy is not just about writing characters, it is also a way to express your feeling. You are communicating with yourself'.

Watching a relevant online video is a good way to lead in. The advance organiser technique is useful in engaging students and gets them prepared for the lesson:

Next, I showed them a writing brush and asked them to observe carefully. Meanwhile, on the PowerPoint, I showed them the Hanzi for pen—'笔/bǐ' (the upper part 'ᢝ' means bamboo leaves, the lower part '毛' means fur). I asked, 'What is this pen made of?' Some students said 'wood' or 'bamboo'. 'Good. What else?' Student: 'Hair' Teacher: 'Yes. The lower part is made of animal fur. Sometimes it was made of wool [calm face] and sometimes it was made of rabbit fur [shocked face]. This upper part of this Hanzi means bamboo, and the lower part means fur. Why?' Students could answer this question very quickly. I felt very happy about it. 'Yes. Literally, the Hanzi '笔' indicates that a pen is made of bamboo and animal fur.

Comparing the ideographic Hanzi '笔' with the real object helps the learners understand the concept of ideographic Hanzi. But for the Year 2 students, this Hanzi is a little bit difficult for them to understand. As the simplified Hanzi '毛' does not look like fur to them. But they did agree the upper part '竺' look like bamboo leaves. Even for the ideographic Hanzi, visual literacy is important.

Step 3, I handed out a writing brush to each student, some water and a piece of 'magic paper'. With the magic paper, we only need clear water to write on and the writing will disappear within minutes. The paper is reusable and won't cause any mess. I asked the students to follow the way I hold the writing brush and show me the way they hold it. Lots of students were asking me 'Am I right? . . . Like this? . . . Mr. Tong, look!' The class became chaotic and they were talking to each other. It turned out that most of the students were not holding the brush correctly. As time was limited, I asked them to dip the brush into the water and follow my lead to write the six basic strokes. I modelled all the six basic strokes on the paper and asked them to copy it once. I observed their writing. Most of them were doing it slowly. The writing was not satisfactory to me, but they seemed to be enjoying it. While I was giving some individual tutoring, someone finished writing and started to use the brush to draw other patterns instead of the basic strokes. I felt that I was not able to do multitasking at the same time. When I was helping a student at this end, there was someone not following my instruction at the other end. I think asking them to write all the six basic strokes at the same time was a mistake. It made me difficult to observe them properly and give them my feedback. Thus, in my other class, changed by instruction. We did it one stroke a time. I asked them to follow my lead and wrote a horizontal line once. I give them my feedback. Then they come this stroke three times on the paper. When this one is finished, we went to another stroke, vertical line. The turnout was much better. In the first period of lesson, I taught them how to hold a pen and how to write the

six basic strokes with a writing brush. They wanted to do more. Writing with a brush was fun, but it took longer than writing with a pencil.

For some complicated Hanzi writing activities like this, it is important for the teacher to instruct the students step by step. Otherwise, it might cause some chaos, which in turn affects learners' learning outcome. In the first class, I asked the students to write all six basic strokes at one time, which is not good to consolidate their learning. The students will get bored quickly and will not have enough practice, so it is important for the teacher to take a step-by-step instruction and make it more organised. An old Chinese saying goes, '慢工出细活' (Slow work makes fine work), which also applies here.

6.2 Hanzi Pronunciation

Pronunciation is another important part of Hanzi teaching. In the two-cycle action research, I found the following two activities useful in Hanzi teaching.

6.2.1 Chants

I explored well-made Chinese chants and videos on YouTube. These videos were rich resources employed in my pronunciation teaching. By using different chants throughout the action research, I found that they were very popular among the young learners. In this part, I will reflect my teaching using chants and analyse the selecting criteria for good chants and other videos to be used in language teaching, especially in Hanzi teaching. Chants were used in almost every topic of each lesson.

Here is the data from Lesson 1, Cycle 1:

I used a chant song called '你好! 你好! 我叫 Tim' as a class activity to consolidate the pronunciation of Hanzi in key sentences of today's topic. The students liked it very much, and by singing this chant song, they can easily pronounce the 6 relevant Hanzi: 你, 好, 我, 叫, 再, 见. It seemed that chant is a good way to help them pronounce and memorise the pronunciation of Hanzi. To make full use of this chant, three steps were being used. First, I played the chant once, the students were required to enjoy the chant first and they could sing along with it if they like. During the first play, I observed that some

students started to sing along with in the second half of the play. Step 2, I asked them to sing along with this song. Step 3, I asked them to replace Tim with their real names. Step 4, invite someone to sing in front of the class. As the song was not long (I only played the first 2 minutes). The whole activity lasts about 10 minutes and the outcome was good. Not only the students learned how to do greetings in Chinese, they also grasped the pronunciation of those Hanzi. Which made it easier to teach them how to write.

Here are the full lyrics of this chant:

Part 1: 你好, 你好, 我叫 Tim。 再见, 再见, 再~见~。

Part 2: 你好, 你好, 我叫 Tim。 再见, 再见, 再~见~。

~Music~

Part 3: 你好, 你好, 我叫 Tim。 再见, 再见, 再~见~。

Part 4: 你好, 你好, 我叫 Tim。 再见, 再见, 再~见~。

Part 5: 你叫什么名字? 你叫什么名字? 你叫什么名字?

I think the reason why they could sing it so quickly is because the lyrics were repeated, and the melody was simple and catchy. Another reason is that I was singing and using my body language with them. When I sing 'nǐ hǎo~ nǐ hǎo~wǒ jiào~Tim' I was acting out like I was Tim with my body language. And the students did so as well. Even the Year 5 students liked this chant, But, the Year 2 were more engaged and more open minded.

(Teacher researcher's reflective journal, Lesson 1a, Cycle 1)

The data shows this chant was welcomed by the students. Students grasped the pronunciation of the lyrics (the target Hanzi to be taught) fast. Reflections show four factors that contributed to the success of this lesson. First, the teacher used a four-step scaffolding strategy to ease the difficulty. Second, the lyrics of the chant were simple and repeated, which made it easier to learn after listening to it several times. Third, the melody was very catchy, which engaged the

students and they were happy to chant. Last, the teacher actively involved himself in the activity, too. He was singing and performing in front of the students. According to the data, Year 2 students were more engaged and open-minded in this activity. This is probably because younger kids like this kind of activity better. Therefore, the use of chanting should be age appropriate. In this case, it also applied to Year 5 students, but there is a possibility that older kids will like this activity less.

Last week in Greetings, I used a chant song to end up the lesson. This week, I used this chant to begin today's lesson. Students liked it very much and they could really chant very well. I was impressed by their pronunciation of the lyrics and their participation. The chant seemed to really work. Year 2 students liked it especially.

(Teacher researcher's reflective journal, Lesson 1b, Cycle 1)

The data further proves the positive effect the chant had on consolidating students' Hanzi pronunciation. It also proves that the chant could be used at a different stage of the lesson to serve different purposes of teaching, in this case, to warm up and review the previous lesson.

6.2.2 Chinese songs

Singing Chinese songs is another pronunciation practicing activity. When I used chants to teach my students the pronunciation of Hanzi in Cycle 1, I found that they liked singing. Some students even suggested that they should learn a Chinese song. Bearing the students' suggestion in mind, I designed a lesson using a genuine Chinese song to teach pronunciation. One feature about chants is that they can be used in a very controlled way. Usually, the lyrics of a chant are closely related to the target language and Hanzi. However, for a genuine Chinese song, its lyrics are not teaching oriented; it is more likely that many Hanzi are not the focus for the lesson, but that is beauty of learning something in a less controlled way. Based on the findings from the chants, I chose a popular Chinese song for young learners. The name of the song is Our Fields. The lyrics are shown below. The song has five parts, and each part has the same melody that is repeated five times with different lyrics. I prepared a worksheet with Hanzi, Pinyin, and English translation on it (see Table 6.2).

Table 6.2 Worksheet of singing activity

Chinese song: Our Fields

Part 1

我们的田野(wǒ men de tián yě), 美丽的 田野(měi lì de tián yě);

(Our fields, beautiful fields)

碧绿的河水(bì lǜ de hé shuǐ),流过无边的稻田(liú guò wú biān de dào tián);

(The jade-green river flows past sweeping rice fields)

无边的稻田(wú biān de dào tián),好像起 伏的海面(hǎo xiàng qǐ fú de hǎi miàn)。

(The sweeping rice fields are like a swinging ocean)

Part 3

风吹着森林(fēng chuī zhe sēn lín), 雷一样的轰响(léi yí yàng de hōng xiǎng);

(The winds blow towards the forests, making thunder like sounds)

伐木的工人(fá mù de gōng rén),请出一 棵棵大树(qǐng chū yì kē kē dà shù);

(The lumbermen are cutting down the big trees)

Part 2

平静的湖中(píng jìng de hú zhōng), 开满了荷花(kāi mǎn le hé huā);

(The quiet lake is studded with lotus flowers)

金色的鲤鱼(jīn sè de lǐ yú), 长得多么的肥大(zhǎng de duō me de féi dà);

(Golden carps are so big and fat)

湖边的芦苇中(hú biān de lú wěi zhōng); 藏着成群的野鸭(cáng zhe chéng qún de yě yā)。

(Flocks of wild ducks are hiding in the reeds)

Part 4

森林的背后(sēn lín de bèi hòu),有浅蓝色的群山(yǒu qiǎn lán sè de qún shān);

(Behind the forests, there are light-blue mountains)

在那些山里(zài nà xiē shān lǐ), 有野鹿和山羊(yǒu yě lù hé shān yáng);

(In those mountains, lives wild deer and goats)

去建造楼房(qù jiàn zào lóu fáng); 去建造矿山和工厂(qù jiàn zào kuàng shān hé gōng chǎng)。

(to build houses, mines and factories)

人们在勘测(rén men zài kān cè),

(Scientists are surveying)

那里埋藏着多少宝藏(nà lǐ mái cáng zhe duō shǎo bǎo zàng)。

(how much natural resources are underneath)

Part 5

高高的天空(gāo gāo de tiān kōng), 雄鹰在飞翔(xióng yīng zài fēi xiáng);

(Up high in the sky, the eagles are flying)

好像在守卫(hǎo xiàng zài shǒu wèi), 辽阔美丽的土地(liáo kuò měi lì de tǔ dì);

(It seems that they are guarding our boundless and beautiful land)

一会儿在草原(yì huì er zài cǎo yuán), 一会儿又向森林飞去(yì huì er yòu xiàng sēn lín fēi qù)。

(One minute they are above the grass land, and one minute they fly towards the forests)

Here is my reflection on the teaching:

The teaching followed a two-step activity-based teaching routine. First present, then practice. In the first step, I played the first part of the song once only and the students thought it was beautiful. Then we moved to Hanzi learning. I did not show the new Hanzi and explain the meaning to the students, instead, I asked my students to circle out the Hanzi they already knew and to have a peer discussion. After that, we checked the answer as a whole class. I was very surprised that they could remember so many Hanzi . . . The second step was practice the Hanzi. This time, I used a Chinese song to help them memorise the Hanzi pronunciation. The students liked this song very much. The

melody was catchy, and some of the Hanzi were learned before, so they did not have much pressure in singing it.

(Teacher researcher's reflective journal, Lesson 4, Cycle 2)

The data, 'I was very surprised that they could remember so many Hanzi', shows that activity-based Hanzi teaching was effective as the students were able to recall the learned Hanzi several weeks later. However, they had trouble in pronouncing some of them if the Pinyin were not provided. This means in activity-based teaching, more activities related to Hanzi pronunciation should be used. Chanting and learning genuine Chinese songs proved powerful activities for pronunciation learning.

6.3 Hanzi Memorising and Recognising

Being able to remember the meaning and pronunciation of Hanzi and recognise their form is one of the most important criteria for successful Hanzi learning. To memorise Hanzi, it is important for learners to come across them several times and get familiar with them. Then, they can recall those Hanzi when they see them later. Rote memorisation is often used to memorise Hanzi in some schools in China. By reading aloud and copying Hanzi several times over does help learning, but it might require perseverance, and the whole experience may not be pleasant at all. This kind of learning activity could do harm to young beginning learners' interest in Hanzi learning, which should not be the focus of teaching. This might cause students' resistance to Hanzi learning. To help students memorise and recognise Hanzi, two activities were explored and found useful through this action research.

6.3.1 Bingo game

The Bingo game was played in Lesson 4, Cycle 1 and Lesson 2, Cycle 2. The topic Asking For Price (Numbers) of Cycle 1 was delivered in two consecutive weeks. Week A focused on the pronunciation of numbers from 1–10. Hanzi were introduced and presented along with the Arabic numerals, but the writing of Hanzi was not the focus of the first period of the lesson due to the limitation in time. Week B focused on the writing of the numbers and two key sentences to be used in role play: 这个多少钱? (How much is this?) 十元 (Ten yuan). Here is the data of this activity:

[In today's lesson—numbers 1–10, Period 1], I used Bingo game to help the students memorise and recall the pronunciation of the

numbers in Chinese. Arabic numerals: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9 were used to play this game as they haven't learnt how to write it in Hanzi. Since the Arabic numerals are widely used in China, it was good to let the students get familiar with their Chinese pronunciation. The Bingo game could be seen as a listening practice, because I was saying numbers in Chinese during the game, and the students need to figure out which number I was saying. It wasn't easy at their first trial. But the students seemed to like this game very much. Everyone was hoping they could get the first bingo. They were listening carefully. And thinking actively to find whether the number I said can be found in his/her bingo sheet. . . . The Bingo game surely fully engaged the students and they had done enough listening practice for the numbers. For Year 2 students, this game was played in pairs so that they could help each other. For Year 5, the game was played individually.

(Teacher researcher's reflective journal, Lesson 4a, Cycle 1)

The data shows that students were well engaged in the Bingo game. They also actually practiced their listening skills unconsciously. Therefore, the Bingo game was fun and effective in learning Hanzi pronunciation in this case.

Now that they have learned how to write 1–10 in Chinese. I gave them a Bingo sheet. Again, they were very excited. This time I asked them to fill in the boxes with numbers in Hanzi. And I was going to say it in English. The students crossed out the numbers they heard . . . It took some time to finish the game. But both me and my students were enjoying every minute of it. Students were responding actively after hearing my numbers. When someone got a bingo, he/she was so eager to show it to me. When I checked their bingo sheet, most did well. But some students got the numbers wrong, and they mistakenly thought they got a bingo. When I told them it was not a bingo, they felt disappointed and wanted to play more.

(Teacher researcher's reflective journal, Lesson 4a, Cycle 1)

This data further proves the popularity of the Bingo game. This time the teacher used the game to practice students' Hanzi writing and recognising skills, which also worked very well.

6.3.2 Spinner game

The Spinner game was played in Lesson 3, Cycle 1; Lesson 1 Pictographic Hanzi, Lesson 1, Cycle 2. I used a PowerPoint slideshow to operate the spinner (see Figure 6.1).

Both the teacher researcher and the students loved this game. The aim of the game was to help the students recall the colours in Chinese. When they see a colour, they need to say it quickly in Chinese. When they see Hanzi, they need to say the meaning in English. The game was a competition between two groups. I split the class into two groups, Group 1 and Group 2. The game was played in 3 rounds. First round, the teacher starts and stops the spinner, and two groups take turns to answer the colour in Chinese. To answer the question, they need to raise their hands. Points will be deducted if someone calls out, because this may affect others' thinking. If Group 1 cannot answer it, Group 2 can help them to answer the colour and get an extra point. In round two, the teacher picks the students randomly, so that everyone has to participant actively if they want to contribute. In round 3, when the teacher stops the spinner, the first one to raise his/her hand and gets the answer right get one point. The students were very engaged in this game, and by the end of the lesson, many of them knew how to say the colours in Chinese. And when they saw the Hanzi, they could recognise about half of the them. I think they did a great job. In round 2, most of the students were participating actively because they did not want to fail their group.

(Teacher researcher's reflective journal)

The success of the game lies in the repetition of the target language and the participation of the students. The best way to memorise the colour in Chinese is to practice as many times as we can, but in a positive way not by rote memorisation. In this game, everyone got a chance to practice their learning repeatedly, either by answering the questions themselves or by listening to someone answering it. Even for those who did not get a chance to answer, he/she

was still thinking actively as they wanted to help their group to win. In Round 2, I picked the students randomly so that everyone got an equal chance to answer the question. In this way, the students had to participate and pay attention to the teacher. If they were absent minded and did not participate, they may not have been able to answer it. For most of them, that was the last thing they wanted to see. Nobody wanted to fail when they wanted their group to win. The game was also played in reverse; instead of seeing a colour and saying it in Chinese, it could be seeing a Hanzi and saying the colour in Chinese. In this way, they were given more chance to pronounce, memorise, recall, and understanding the meaning of Hanzi.

In Cycle 2, the game was 'transplanted' into other pictographic Hanzi. On the spinner, there were several pictographic Hanzi that they had just learned. When the spinner stopped, the students were required to answer the meaning of the pointed Hanzi. Or, another way, they were required to say it in Chinese when they saw the English translation.

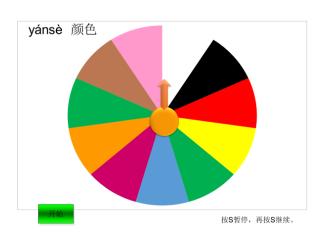


Figure 6.1 Spinner game

6.4 Hanzi Teaching to be Paralleled with Pinyin

The data reveals that showing Hanzi and Pinyin at the same time at the very beginning of Chinese language learning is essential. First, it helps learners to become familiar with Hanzi in terms of its form and basic strokes. When the teacher was writing the Hanzi, the students observed the way the teacher was writing. That helped the students to become familiar with Hanzi writing. Another important reason for showing Hanzi is that, in Chinese language, there are lots of homophones. Without Hanzi, showing Pinyin alone can be misleading in understanding the true meaning of it, especially for nonbackground beginning learners who have a very limited Chinese vocabulary. Showing Hanzi along with the Pinyin helped

learners to distinguish different Hanzi with the same Pinyin. The following reflection from the teacher researcher demonstrates this.

When teaching the Year 2 students a popular Chinese song 'Our Fields' (我们的 田野), I wrote down the Chinese lyrics in Pinyin only. I thought it would be easier for them to learn, because Pinyin is easy to pronounce, and I didn't want to overwhelm them by showing them those scary Hanzi, most of which we had not learned. In seeing those Romanised Chinese Pinyin, some smart kids immediately relate those with the same/similar pronunciation to what they have learned before. However, most of them are just homophones. For example, when hearing the Pinyin qǐ (起/rise), one student said 'I know that one, it's qī (七/seven) . . .' Another student pointed at the Pinyin liú (流/to flow) and said, 'that's six (六), liù'. I asked if there are any Hanzi they've already learned, some students said wǔ (无/without) was wǔ (五/five). I explained that many Hanzi had the same or similar pronunciation and gave them the three examples above. In another class, I showed the Hanzi paralleled with Pinyin, only a couple of students said it's wǔ (五/five) or liù (六/six). And with a little bit explanation and comparison, they no longer had any confusion.

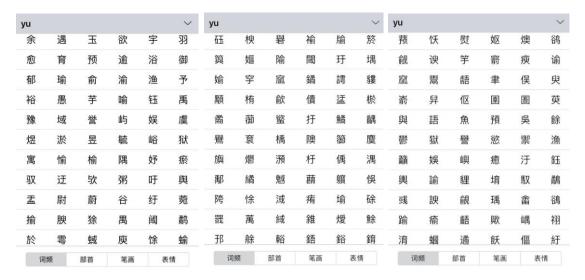
(Teacher researcher's reflection, Cycle 3 Summary)

The data indicates that different Hanzi with the same pronunciation may confuse the students. They assumed that a particular pronunciation would represent one particular Hanzi. They did not know that one pronunciation may represent many different Hanzi.

Pinyin could be used as a way of inputting Hanzi. As there are many homophones, when we input a Pinyin, different Hanzi with the same sound will pop out, and users need to select the desired Hanzi from the list. Here is another example of showing the homophones in Chinese language. I used my mobile device to input Pinyin 'yu'; more than three pages of Hanzi with the same Pinyin appear. Thus, it is important for learners to distinguish the homophones no matter whether they are learning Hanzi or using Pinyin to input Hanzi in an electronic device. Only using Pinyin to teach language could be rather confusing. Based on my teaching practice, the beginning learners had difficulty in distinguishing different tones. On many occasions, they even thought that

Hanzi with different tones represent the same meaning, which made language teaching more confusing. Figure 6.2 shows the homophones of Pinyin 'yu' when it is input in an electronic device.

Figure 6.2 An example of inputting Pinyin 'yu' using an electronic device



6.5 Conclusion

This chapter analysed the data relating to the activities in Hanzi learning. Different activities were investigated to assist different aspects of Hanzi learning. The data indicates that good activities help raise the learning interest and consolidate students' Hanzi capabilities from three perspectives: meaning, form, and pronunciation. Activities such as Shukong, chants, and games can be both time efficient and productive. However, culturally related activities such as calligraphy writing and learning to sing Chinese songs require more time. Those activities are also attractive to the students. The deficit in these activities is that they are time consuming in both preparation and implementation.

Chapter 7: Conclusion, Discussion, and Implications

7.0 Introduction

This chapter first summarises the key findings of this study. Then, the two-cycle action research tendency is discussed. Third, I address my role as a teacher researcher. Last, the implications for further research will be discussed, with the aim that future researchers can further this study to advance the teaching of Hanzi to make Chinese learnable.

7.1 Key Findings

There are three areas of findings in this study: (1) the suitability of activity-based Hanzi teaching pedagogy for nonbackground beginning learners, (2) the effectiveness of scaffolding strategies to support the activity-based learning to make Hanzi learnable, and (3) activities that could be used to achieve different Hanzi teaching goals.

7.1.1 Activity-based Hanzi teaching

The two-cycle action research found that activity-based Hanzi teaching has positive effects on students' Hanzi learning, and it proves to be suitable for nonbackground beginning learners in Australia. By participating in the activities, students learned the pronunciations, forms, and meanings of Hanzi in a fun and rewarding way. The data from Cycle 1 shows that activities are helpful in Hanzi teaching but integrating oral language in the activity-based Hanzi teaching gave limited help. It limited students' understanding of Hanzi in a systematic and logical way. Too much time was also spent in teaching oral language rather than focusing on the Hanzi. However, this does not mean the activity-based Hanzi teaching pedagogy is not suitable. In fact, the students actively participated in the activities and learned Hanzi well. In Cycle 2, the data shows that even without the influence of the oral language, students could still learn Hanzi effectively by taking part in the activities. Thus, the activity-based Hanzi teaching proved to be suitable to be used among the nonbackground beginning learners. The data also reveals that to maximise Hanzi learning efficiency and to ease learning difficulty, scaffolding strategies should be used to assist the activity-based Hanzi teaching pedagogy to make Hanzi learnable.

7.1.2 Scaffolding strategies in activity-based Hanzi teaching

Scaffolding strategies have positive effects on students' Hanzi learning. By using those strategies, teachers may ease the difficulty in Hanzi learning, improve students' engagement

during the lesson, and help students better understand the Hanzi in a less stressed way. Due to the nature of Hanzi, teachers should make full use of learners' visual literacy to make sense of the meanings of Hanzi. Language transfer could have both positive and negative effects on Hanzi learning. What we can do is to minimise the negative effects by making explicit explanations and adjusting students' learning mistakes. Other strategies such as questioning, giving feedback, and modelling were also found useful in assisting students' active thinking, building up their confidence, and enhancing their learning interest.

When teaching pictographic Hanzi, I found that peer learning provides learners with a wider variety of possible answers, which increases the chance of getting the answer right. However, peer learning is only helpful when students already have a certain amount of knowledge about Hanzi; otherwise, it is less likely to work if the students have no knowledge of the related task.

Hanzi are not some kind of arbitrary symbols that do not have any meaning, like the English alphabet. Hanzi are visual and logical, visual because many Hanzi derive from simple pictures of the world. Most Hanzi at the very beginning were pictographic, which made it easier to be understood even by the kindergarten students in my school. Then Hanzi became more complicated by combining new elements/components to create a wide variety of meanings, including abstract concepts such as love and time. These combined Hanzi can be ideographic and very logical.

By focusing on the nature of Hanzi—visual and logical—I found it helpful to engage learners' visual literacy and critical thinking skills. One key finding of this study is the importance of using students' visual literacy, just as the students in my class said, 'They [Hanzi] can be pictured'. The visualised Hanzi teaching pedagogy is suggested to be used to teach nonbackground beginning learners in Australia.

Another finding is that we can engage learners' critical and creative skills thinking to help them understand more complicated Hanzi, especially the ideographic ones. By understanding the meanings of each part, it is not difficult to put them together and figure out the ultimate meaning through learners using their critical thinking skills. To fully activate learners' visual literacy (prior knowledge) and their critical and creative thinking skills, proper scaffolding is always needed to achieve their learning outcomes.

7.1.3 Activities in activity-based Hanzi teaching

Different activities could be used to serve different aspects of Hanzi learning. The data indicates that good activities help raise the learning interest and consolidate students' Hanzi capabilities from three perspectives: meaning, form, and pronunciation. Activities such as Shukong, chants, and games can be both time efficient and productive. However, culturally related activities such as calligraphy writing and learning to sing Chinese songs require more time. Those activities are also popular among the students because the students are naturally curious. However, they can be time consuming and need a lot of preparation both before and during the lesson.

7.2 Tendency of the Two-Cycle Action Research

This study was conducted using an action research with two cycles. The Cycle 2 was designed based on the findings and reflections of the Cycle 1. Each cycle consisted of four to six lessons.

In Cycle 1, an oral language-integrated, activity-based Hanzi teaching pedagogy was used. The Hanzi I taught were selected from the key topic sentences. The activity-based teaching method was suitable for nonbackground beginning learners. Students were very engaged in taking part in the activities. However, as I also integrated oral language teaching in this pedagogy, it made the Hanzi teaching unsystematic and less efficient. After Cycle 1, students did not show sufficient understanding of how Hanzi were formed and why they were written in this way. One key finding from Cycle 1 is that students actively used their prior knowledge to try to understand the meaning of the Hanzi. The pictographic Hanzi were more accepted by them than the other categories of Hanzi. To make Hanzi learnable, scaffolding strategies were found essential to help students understand and learn Hanzi better.

Thus, in Cycle 2, I refined the activity-based Hanzi teaching. I changed my focus from the oral language based to the Hanzi based, which focused on the systematic understanding of how 'Hanzi' originated and was formed. According to the findings from Cycle 1, my teaching content focused on the pictographic Hanzi and a small part of the ideographic Hanzi. In this cycle, the key findings are that activities were helpful in teaching Hanzi, as was discovered in Cycle 1; however, students tended to give lots of irrelevant answers as their literacy was based on their daily life in Australia, not in China, so proper scaffolding strategies are essential to help them to understand. What is more, I found they were much

more engaged when we had intercultural activities such as watching the Chinese cartoon movie. They thought the movie was interesting and different. They also mentioned that animated Hanzi helps them to understand. Some highly logical ideographic Hanzi that was formed from the pictographic ones were also easy to teach.

7.3 Teacher Researcher's Role Development

As a ROSETE participant, I am both a teacher and a researcher. These two roles developed along with my progression of the study. According to the *Australian Professional Standards for Teachers* (Australian Institute for Teaching and School Leadership, 2011), the first and most important standard is to 'know students and how they learn' (p. 5). Although I had four years' teaching experience in China, it still took a long time for me to meet this standard at a graduate level. This is because the educational setting is different from China.

First, due to the economic, cultural, and pedagogical difference, our classroom culture is different. In China, we usually have a bigger class size (more than 35 students in one class), where students sit behind their own desks and face the teacher. During the class, students are less encouraged to ask questions to have a smooth delivery of lessons unless it is time to ask questions. Teachers are required to use the same textbook provided by the Education Bureau and plan the lessons accordingly; whereas in Australia, public school students spend a lot of time sitting on the floor, and they are encouraged to ask questions if they are relevant to the lesson. Teachers are free to use different teaching materials and plan the lessons according to the syllabus. I felt it was more flexible to decide what to teach.

Second, my role changed as the subjects I taught changed. In China, I taught English, and it was also my second language, so I knew how my students felt when they started learning a new language. In Australia, I taught Chinese, which was my first language. I had a good knowledge of my mother tongue, but it became more difficult for me to understand how my students felt about their learning. Thus, the biggest challenge for me was to 'know my students and how they learn'.

In the second role as a researcher, my knowledge of conducting research was quite limited at first. I did not know how to design my research and how to collect my data. These two roles began to change when we started receiving training and attending workshops from the NSW Department of Education and WSU. This training and workshops helped me develop a better understanding of a teacher's role in Western Sydney by answering these questions: What

does the school look like? How do kids learn? How much Mandarin have they learned? Do they like learning a new language?

As my teaching went on, I established a better relationship with my students and the classroom teacher. The students were willing to share their understanding of Hanzi with me and tell me things they learned about China outside the classroom. The classroom teacher was very supportive, and she valued my teaching. As a researcher, the data that I collected for my research supported my research; hence, I became more confident and had more control of my research.

7.4 For Future Research

Hanzi has three dimensions: the written form, the pronunciation, and meaning. The activity-based Hanzi teaching pedagogy helps learners understand the meaning and form of Hanzi, but it seems less effective for students to memorise the pronunciation of Hanzi even though there are several activities designed for Hanzi pronunciation. Unlike English vocabulary, learners can use their phonetic knowledge to pronounce a word. The Hanzi give fewer clues of the pronunciation if the beginning learners do not have much knowledge of it. To make Hanzi teaching complete, a proper method is needed to help learners memorise the pronunciation of Hanzi. In this study, I found chanting and singing helpful to learn the pronunciation, but further research is needed to make pronunciation teaching more efficient.

In Cycle 2, I tried to use the lyrics of a Chinese song to teach students new Hanzi and to help them consolidate their learning of the Hanzi. I found that learners were very engaged in singing a Chinese song and they could remember the pronunciation of those Hanzi even without looking at the notes. To improve activity-based Hanzi teaching pedagogy, perhaps it can be combined with music pedagogy to help ease learners' difficulty of memorising the pronunciation of Hanzi.

Intercultural experiences such as writing calligraphy and ordering food in a Chinese restaurant improves learners' engagement. When I showed my students a video of an artist performing Chinese calligraphy, the kids thought it was very cool, and they liked the artistic way of writing Hanzi. After watching that, they were eager to try it themselves. They practiced the basic strokes of Hanzi first and then picked some Hanzi they had learned from the word bank and wrote them down. Some of them did this in a very fancy way. Although their final products were not very satisfying, they were quite happy with what they had been

doing. They could have learned something from this kind of activity, but it is hard to measure what they had actually learned and whether this kind of learning was effective or not. Learners' full engagement in those activities is an important indication of visible learning. Therefore, properly combining these intercultural activities with Hanzi teaching is worth being explored. In future research, it is suggested that researchers study the impact of intercultural activities on Hanzi learning, especially on their understanding of the written form of Hanzi.

In this study, I used a lot of online resources and information technologies to help teachers facilitate teaching during the class. ICT could also be used as extended learning by students. One student told me that her sister used a YouTube video to teach him a Chinese song, which surprised me a lot. We learned this song at her sister's class, and obviously her sister liked it and she went to YouTube to teach herself to learn this song. What is more, she became a teacher of her younger brother and showed him this song.

This example showed us the possibility that extended learning after class could occur when students like their learning during class. ICT could be their main means to practice and learn. Further studies are suggested of the relationship between the interest/motivation occurred during class and the extended learning using ICT competence. A detailed methodology of encouraging learners to use ICT or other resources to extend their learning after class is needed to make language learning more sustainable and interesting.

7.5 Conclusion

In this study, the activity-based Hanzi teaching pedagogy proved to be suitable for nonbackground beginning learners. Students actively took part in the activities to pronounce, understand, and make sense of the meaning of Hanzi. To maximise the effectiveness of this pedagogy, research also found that proper scaffolding strategies should be used throughout Hanzi teaching. Students are more likely to use their prior knowledge and thinking to better understand Hanzi with the help of the teacher's scaffolding strategies. In activity-based Hanzi teaching, some activities were found useful in Hanzi teaching if properly used. Some activities are helpful in learning Hanzi pronunciation and form, while some clarify the Hanzi meaning. Some activities are quick and easy while some can be time consuming. It is recommended to keep a balance between time and learning interests when carrying out these activities.

Although activity-based Hanzi teaching pedagogy is effective in Hanzi learning in terms of the pronunciation, form, and meaning, it does not mean it is equally helpful in those three areas. Research found that students' ability to pronounce the Hanzi remained weak, even though several related activities were used. Further research is needed to make this teaching pedagogy more effective.

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Appendix 1 Human ethics approval

Locked Bag 1797 Penrith NSW 2751 Australia Research Engagement, Development and Innovation (REDI)



REDI Reference: H12275 Risk Rating: Low 2 - HREC

HUMAN RESEARCH ETHICS COMMITTEE

4 July 2017

Doctor Jinghe Han School of Education

Dear Jinghe,

I wish to formally advise you that the Human Research Ethics Committee has approved your research proposal H12275 "Improving Hanzi teaching approaches for Chinese as a Foreign Language learners in Western Sydney", until 31 March 2018 with the provision of a progress report annually if over 12 months and a final report on completion.

In providing this approval the HREC determined that the proposal meets the requirements of the National Statement on Ethical Conduct in Human Research

This protocol covers the following researchers: Jinghe Han, Nathan Berger, Yong Tong

Conditions of Approval

- 1. A progress report will be due annually on the anniversary of the approval date.
- 2. A final report will be due at the expiration of the approval period.
- Any amendments to the project must be approved by the Human Research Ethics Committee prior to being implemented. Amendments must be requested using the HREC Amendment Request Form: https://www.westernsvdnev.edu.au/ data/assets/word doc/0012/1096995/FORM Amendment Request.docx
- Any serious or unexpected adverse events on participants must be reported to the Human Research Ethics Committee via the Human Ethics Officer as a matter of priority.
- Any unforeseen events that might affect continued ethical acceptability of the project should also be reported to the Committee as a matter of priority
- Consent forms are to be retained within the archives of the School or Research Institute and made available to the Committee upon request.
- Project specific conditions:

There are no specific conditions applicable.

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 e-mail address humanethics@westernsydney.edu.au as this e-mail address is closely monitored.

Yours sincerely

Professor Elizabeth Deane

Presiding Member,

-30

Western Sydney University Human Research Ethics Committee

Appendix 2 SERAP approval



Mr Yong Tong 56 Second Avenue KINGSWOOD NSW 2747

DOC17/921641 SERAP 2017124

Dear Mr Tong

I refer to your application to conduct a research project in NSW government schools entitled Improving Hanzi teaching approaches for Chinese as a Foreign Language learners in Western Sydney. 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 principals.

This approval will remain valid until 31-Mar-2018.

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:

Researcher name	wwcc	WWCC expires
Yong Tong	WWC1148004V	24-Oct-2021

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

- . The privacy of participants is to be protected as per the NSW Privacy and Personal Information Protection Act 1998.
- 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.
- All conditions attached to the approval must be complied with.

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 Robert Stevens Manager, Research 1 September 2017

School Policy and Information Management

NSW Department of Education
Level 1, 1 Oxford Street, Darlinghurst NSW 2010 – Locked Bag 53, Darlinghurst NSW 1300
Telephone: 02 9244 5060 – Email: seran@det.nsw.edu.au

Appendix 3 Participant Information Sheet





Participant Information Sheet - Parent/Carer (Specific)

Project Title: Improving Hanzi teaching approaches for Chinese as a Foreign Language learners in Western Sydney

Project Summary:

Your child is invited to participate in a research study being conducted by Mr Yong Tong, a Master of Philosophy student of Western Sydney University under the Supervision of Dr Jinghe Han and Dr Nathan Berger of Western Sydney University. The research is about developing approaches to Hanzi/characters writing, aiming to help non-background young learners in the process of writing Chinese characters, such as the way they draw the lines (strokes) and the way they understand those characters.

How is the study being paid for?

No payment is involved.

What will my child be asked to do?

With your consent, your child will be asked to participate in the following activities:

- 1. Your child will be observed by the teacher-researcher during his/her normal Chinese classes (three times each term for two terms) on the process of his/her Hanzi writing; your child is not asked to do anything beyond his/her normal class attendance. An audio recorder with a personal microphone will be used to record my own voice, which helps me to remind my teacher talking to keep a reflective journal.
- Your child's worksheets about Hanzi writing will be collected by me after the class (a maximum of six worksheets throughout two terms).

How much of my child's time will he/she need to give?

It will be part of the regular teaching at school, and will not take up additional time.

What benefits will my child, and/or the broader community, receive for participating?

There is no direct benefit to your child or to the community from the immediate outcomes of this study. The outcome of this research is expected to advance knowledge in Chinese language teaching pedagogy.

Will the study involve any risk or discomfort for my child? If so, what will be done to rectify it?

Your child might get anxious during my observation of his/her Hanzi writing process. If so, your child will no longer be observed by me, the teacher-researcher. However, all research will be conducted as a part of ordinary schooling and the risk is low.

How do you intend to publish or disseminate the results?

It is anticipated that the results of this research project will be published as a research thesis.

Will the data and information that my child provides be disposed of?

Yes. During the study, all the worksheets and consent forms will be stored in a locked cabinet in UWS HDR workspace. After the study, the information will be stored for five years in accordance with UWS

policy. The school of education will take responsibility for ensuring the information is retained and securely stored for the required period and subsequently destroying all data after the required 5 year period.

Can I withdraw my child from the study? Can my child withdraw from the study?

Yes, you can withdraw your child from the study without giving any reason, at which point all written records of your child's participation will be destroyed. Your child can also withdraw at any time.

What if I require further information?

Please contact Yong Tong in the first instance, should you wish to discuss the research further:

[Yong Tong, 18790333@student.westernsydney.edu.au]

You can also contact my research supervisors:

Dr Jinghe Han

Office: Building K, Kingswood campus, UWS

Dr Nathan Berger

Office: Building K, Kingswood campus, UWS

What if I do not consent?

If you do not consent your child's participation in my study, your child's teaching won't be affected.

What if I have a complaint?

If you have any complaints or reservations about the ethical conduct of this research, you may contact the Ethics Committee through Research Engagement, Development and Innovation (REDI) on Tel +61 2 4736 0229 or email humanethics@westernsydney.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 for your child to participate in this study, you may be asked to sign the Consent Form. The information sheet is for you to keep and the consent form is retained by the researcher.

This study has been approved by the Western Sydney University Human Research Ethics Committee. The Approval number is H12275.

What do I do now?

If you and your child agree to participate in this study, please sign the consent form and return it to the class teacher.

University of Western Sydney ABN 52 014 089 881 CRICOS Provider No. 00917K Locked Bag 1797 Penrith NSW 2751 Australia

westernsydney.edu.au

Appendix 4 Consent Form





Consent Form - Parent/Carer

Project Title: Improving Hanzi teaching approaches for Chinese as a Foreign Language learners in Western Sydney
I,, hereby consent for my child, to participate in the above-named research project.
I have discussed participation in the project with my child and my child agrees to his/her participation in the project.
I acknowledge that:
 I have read the participant information sheet (or where appropriate, have had it read to me) and have been given the opportunity to discuss the information and my child's 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 for my child to: (please tick in the box if you give consent to)
□Participate in weekly learning of Chinese, which will be observed by the researcher.
□Participate in the worksheets activities, worksheets designed for individual or group activities about Hanzi writing will be collected by the researcher.
I consent for my child's data and information provided to be used for this 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 them will be used in any way that reveals their identity.
I understand that I can withdraw my child, or my child can withdraw, from the study at any time without affecting their relationship with the researcher/s, and any organisations involved, now or in the future.
Signed: Name: Date:
This study has been approved by the Human Research Ethics Committee at Western Sydney University. The ethics reference number is: H12275.
What if I have a complaint?
If you have any complaints or reservations about the ethical conduct of this research, you may contact the Ethics Committee through Research Engagement, Development and Innovation (REDI) on Tel +61 2 4736 0229 or email humanethics@westernsydney.edu.au .

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

the outcome.