

**Opening all your senses: An exploration of the multimodal approach  
to engage students' learning of Chinese as a foreign language**

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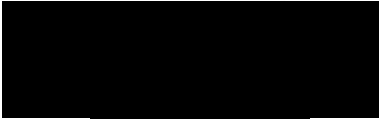
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## DECLARATION

I declare that except where due acknowledgement has been made this research thesis 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 Information derived from the published or unpublished work of others has been acknowledged in the text and a list of references is given.



Jia SHI

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## **List of abbreviations**

AFL:	Assessment for Learning
CARET:	Center for Applied Research in Educational Technologies
DEC:	Department of Education and Communities
NMEB:	Ningbo Municipal Education Bureau
NSW:	New South Wales
ROSETE:	Research Oriented School Engaged Teacher Education
TCFL:	teaching Chinese as a foreign language
TESL:	teaching English as a second language
TPR:	total physical response
WSR:	Western Sydney region
WSU	Western Sydney University
ZCD:	zone of current development
ZPD:	zone of proximal development

## **Abstract**

This study explores how to use multimodal approaches to engage students in learning Chinese as a foreign language in Australian schools. It includes exploration of different modes that can be utilised in class, the ways that various modes can be integrated to engage students, and the connection between the suitability of modes and teaching content. To find the answers to the research questions, a two-cycle action research was designed. Data is collected mainly from documents, observations, reflective journals, questionnaires, and focus group interviews. It was then analysed through a qualitative method, and three data-driven themes are presented: the picture-based multimodal approach, the gesture-based multimodal approach, and the touch-based multimodal approach. The multimodal approach shows its strength in engaging students by stimulating students' senses with various modes and forming a relaxing–competitive learning environment in class. It is also found that supplementary methods (“度” du, teaching strategies, etc.) are needed to maximise the effects of the multimodal approach. This research provides several evidence-driven practical multimodal methods for other teachers of Chinese to draw upon to engage their students in teaching Chinese as a foreign language classes.

*Key words:* multimodal approach, engagement, TCFL

# **Chapter 1**

## **Teaching Chinese as a foreign language with the multimodal approach**

### **1.0 Introduction**

Chapter 1 introduces the research problems, questions, aims, and significance. First, it explains how the research question was developed on the grounds of the researcher's experience (both personal study experience and educational site observation) and the current situation in teaching Chinese as a foreign language (TCFL) in schools in the Western Sydney region. Second, it illustrates the goals of the study during the process of research over 18 months. Last, it provides the necessity to carry out this research, mainly from the aspects of theoretical contribution, teachers' professional development, student learning, and Australia–China cooperation.

### **1.1 Research problems**

After graduation from Ningbo University in China, I joined the Research Oriented School Engaged Teacher Education (ROSETE) program as a volunteer teacher researcher of Chinese in a Western Sydney school. The program is organised by the New South Wales Department of Education and Communities (DEC), the Ningbo Municipal Education Bureau (NMEB) and Western Sydney University (WSU). In this study, the researcher is a teacher, and so the term teacher researcher is an alternative to researcher. This was a good opportunity for me as a researcher to improve my teaching skills, enrich my professional knowledge, and experience a different culture. More importantly, theoretical works in the field of TCFL are not fully developed, and this meant I had much to explore to contribute to the field.

My personal education experience made me realise that the multimodal approach to teaching language plays an important role in students' learning. My parents are both experienced teachers, and they never lacked strategies to instruct me during my primary school learning. They were keen to talk with me and make sure I fully grasped what I was taught in class. This added to the smoothness and fruitfulness of my primary schooling. However, things

changed when I was in high school, where I found that I was surrounded by boring teaching and overwhelming tasks. My awful adolescence made it worse. This struggle lasted for a year until the multimodal approach came into my school life.

Different to traditional and uninspiring teaching methods, a new English teacher delivered her lessons using not only a combination of blackboard writing and lecturing, but through gestures, pictures, videos, questions, and even games. The students were excited, but none of us knew that the teacher was using a multimodal approach, which I later found was derived from the New London Group's multiliteracy concept in 1996.

My experience of observing local teachers' language class and my own teaching experience in Western Sydney schools also reinforced my belief that the multimodal approach would be a stimulator for students' language learning. As part of my research degree study, I had the opportunity to observe some Australian language classes. I noticed that Australian students are active and love to learn what appeals to them. However, I noted that students did not seem interested in what I delivered during my teaching. These problems mostly emerged as I wrote down the characters and *pinyin* (the standard system of Romanised spelling for transliterating Chinese) on the whiteboard and let them repeat after me. The result was that few of them made the effort to understand me, and some of them just refused to listen. This led to self-examination about my class: Was the content too difficult? Or was my teaching tedious? Maybe they were going through the boredom I had experienced during my commencement of high school.

The main problem with the TCFL classes I observed and taught in the school was that monotonous ways of teaching could not stimulate students' interest in learning, so they were easily disengaged. To promote student engagement in a TCFL class, delivery is an art, and suitable teaching methods are as important as the content. Employment of the multimodal approach, therefore, could contribute to students' engagement in learning Chinese as a foreign language.

In this study, I explored the multimodal approach to teaching Chinese to Australian public school students. The key research question was:

How can a teacher employ the multimodal approach for beginning learners to engage with learning Chinese as a foreign language in Sydney schools?

The contributory questions were:

1. What are the possible modes that can be used in TCFL classes?
2. How can the various modes be integrated or combined to help students' classroom engagement?
3. How can the various modes be employed in TCFL classes in terms of the suitability for the teaching content (e.g., listening, speaking/*pinyin*, and writing/characters)?

The multimodal approach and multimodality are rooted in Halliday's (1978/2001) social semiotic theory of communication. The multimodal approach requires educators to effectively combine static (word, picture, photo, and links) and dynamic (sound, visual mode, gesture, movement, eye contact, and expression) resources through different media to offer an all-round multisensual experience for learners, thus motivating the potential and interest of the learners and maximising the results of teaching and learning (New London Group, 1996).

The multimodal approach could be useful for TCFL classes, because the Chinese language, like any other language, takes speech sounds as the carrier, meanings as the main content, and characters as a construction of visual forms. It also contains many additional meanings, such as emotional meaning and cultural meaning, which cannot be understood by verbal explanation only. Therefore, in the teaching process, it is necessary to improve the students' language learning ability and open all their senses to understand Chinese and to grasp Chinese from multiple angles. From this view, the multimodal approach may show its advantages in (1) information transformation and language learning, (2) flexibility and creation for teaching and learning, and (3) a combination of different strategies to engage students (Zhang, 2012).

However, the implementation of the multimodal approach could have its barriers. For example, one gesture may have different meanings interpreted in different contexts and different cultures. It is worth noticing that the fluid and flexible relationship between the

meaning a particular mode represents and its embedded culture makes the multimodal approach more complicated (Jewitt, 2008). This was taken into consideration during this research.

## **1.2 The expected research outcomes of the project**

In this research, the multimodal approach was explored in the teaching process, from lesson plan to lesson delivery, as well as through assessment and feedback.

The expected outcomes of this research were as follows:

1. To understand the multimodal approach in practice, particularly in TCFL classes;
2. To identify the ways of integrating the various modes that may contribute to the engagement of learners in TCFL classes;
3. To identify the connections between modes and teaching content.

## **1.3 Significance of the research project**

The research into TCFL using the multimodal approach first contributes to both TCFL pedagogy and the theory of multimodality. As one part of ROSETE program, the research also provides insight into TCFL teacher education by gathering first-hand teaching experiences and analysing the data produced through action research. Through improving existing teaching methods, the research also benefits students in Chinese language learning and even in their future careers. Last, this study contributes to the developing trend of the China–Australia relationship.

First, exploring this research in the field of TCFL significantly contributes to the pedagogy of language education. In the last 30 years, China's economy has shown great development. During this period, Chinese language and culture has become popular in Australia and other Western countries. The Chinese language as an important global language has stimulated Westerners' motivation to learn. However, the pedagogy of TCFL has been underdeveloped. This can be observed in the sharp drop in enrolment rates in Chinese language learning in senior high schools in Australia. Orton's (2008) study demonstrated that traditional TCFL pedagogy does not fully meet the demand in retaining Chinese language learners.

Therefore, by investigating the multimodal approach to teaching in TCFL classes, this research provides valuable first-hand data and analysis to inform TCFL educators of the application of teaching methods in the field. Meanwhile, research of the multimodal approach in TCFL classes is a new attempt in multimodal theory. Since the theory of multimodality emerged in the 1990s, research has involved not only the traditional text, but also three-dimensional graphics, hypertext electronic texts, and videos (Peters et al., 1996; Snoek & Worring, 2005; Unsworth, 2001). Practical applications in language teaching, such as English writing and lexical learning, have shown optimistic results (Bezemer & Kress, 2008; Yu & Ballard, 2004). This approach has proved to be a powerful tool in helping to improve teaching results in English language education (Ajayi, 2015; Zhang, 2009). However, little research has been conducted in TCFL. Hence, this research aimed to contribute through exploring the multimodal approach in the TCFL area.

Second, exploration of the multimodal approach contributes to TCFL teachers' professional development. There are challenges for Chinese teachers teaching non-background speakers of Chinese in Western countries. In Australia, high dropout rates partly result from unqualified TCFL teachers. As Orton (2008) reported, "94% of those who begin Chinese at school quit before Year 10. Beginners at university drop out at rates close to 75%" (p. 8), with schools rejecting many teachers due to their poor presentation socially and linguistically—the schools doubt these Chinese teachers' abilities to relate well to Australian students and manage a local classroom. Specifically, some TCFL teachers do not know how to deal with Australian school learners, colleagues, and parents (Orton, 2008). This implies that TCFL teachers might be lacking in strategies to make students comfortable and their learning effective in class. Therefore, through the exploration of the multimodal approach in TCFL classes, the findings of this research may help TCFL teachers' professional development. The capability to employ multimodality in classes will also help teachers of teaching English as a second language (TESL) to improve their teaching skills. As a part of the ROSETE program, the outcomes of this research will, on the one hand, improve TCFL teachers' skills of building a multimodal environment, and on the other hand, it will contribute to English as a foreign language teachers in English-speaking countries. Teaching strategies in TCFL can be insightful in English

teaching. Therefore, the capability to employ multimodality in classes would help both TCFL and TESL teachers to improve their teaching skills.

Third, this research may make a difference to students' language learning and career development. With the capability to communicate in Chinese, Australian students can gain insights into the contributions made by Chinese-speaking communities to Australia, and even to global society. They may also benefit from the knowledge of Chinese in areas such as international community awareness, future employment, and self-development (K–10 syllabus). However, students who are learning Chinese are challenged by particular characteristics of the Chinese language, namely, “tones, homophones, characters and the system of particles and verb complements” (Orton, 2008, p. 30). These problems are barriers for Chinese language learners. Therefore, this research tried to contribute to the reduction of barriers through utilisation of the multimodal approach. The other benefit students may gain from the research is that by bringing multimodality into TCFL classes, Chinese can be taught in a way full of stimulation and delight. Employing different modes helps students to remember and understand the content, and more importantly, teaching with multimodality creates a lively classroom environment, which is appealing to Australian students. As stated by Confucius (2008) 知之者不如好之者，好之者不如乐之者 (zhi zhi zhe bu ru hao zhi zhe, hao zhi zhe bu ru le zhi zhe), or “Those who know how to learn are inferior to those willing to learn, while those who are willing to learn cannot do better than those who take learning as joy.” The research of teaching Chinese with the multimodal approach tries to discover students' interest and help them solve problems with fun.

Fourth, this research may contribute to Australia–China relations and mutual communication. In Australia, implementing second language learning or languages other than English is a significant part in the inevitable trend. It not only aims to tap into and build multinational companies, but also to create new understandings for multicultural living at the local level (Exley, 2006). Among foreign languages, Chinese has become widespread because of the emerging role of China in the international economy and politics. At the government level, the NSW government initiated the international and cross-sector cooperation among WSU, the NMEB, and DEC schools and students in 2008 (Singh & Zhao, 2008). If this is

“Rome,” then as a part of the program, at the research level my research can be a small brick. Even a little progress made by this research would be meaningful for the whole cooperation between NSW and Ningbo, as well as between Australia and China.

#### **1.4 Structure of the thesis**

Chapter 1 introduces the research question, aims, and significance. This part explains how the research question was developed through the researcher’s experience and the existing problem, the goals of the thesis, and the necessity to carry out this research from the aspects of theory, teacher development, student education, and the Australia–China relationship.

Chapter 2 will review literature about the multimodal approach, applications of the multimodal approach, and student engagement. Through this literature review, conceptions and definitions are identified and some former strategies and methods are highlighted. This was used to instruct the lesson design to promote student engagement in TCFL classes.

Chapter 3 discusses the research methodology. Action research is represented to draw a map for the two-cycle teach–research. The chapter also introduces the method of data collection, data analysis, and research principles.

Chapters 4 to 6 are the main parts of the thesis: the process of analysis for the 18-month practice. During four rounds of teaching practice and action research, the researcher collected data, analysed data, and aimed to discover how a teacher can employ the multimodal approach for beginning learners to engage with the learning of Chinese as a foreign language in Western Sydney schools.

Chapter 7 aggregates the analysis of data in the three former evidential chapters, addresses the research questions by discussion of the findings, and concludes the study. It also provides recommendations for further study.

## **Chapter 2**

### **A review of the multimodal approach, TCFL, and student engagement**

#### **2.0 Introduction**

This chapter reviews definitions of the multimodal approach and related core concepts such as mode and multimodality. It then looks at different modes composed of the multimodal approach and the principles and components of multimodal approach design. It also reviews literature of TCFL. Finally, it focuses on the concepts related to student engagement. The purpose of this review was to inform the proposed research conceptually and practically in this study.

#### **2.1 Key concepts related to the multimodal approach**

To understand the multimodal approach, a few key concepts need to be clarified. Explaining the definition of mode is a fundamental step for multimodality understanding and multimodal approach application.

##### **2.1.1 Mode**

Kress and van Leeuwen (2001) considered mode to be a semiotic resource with a certain regularity of use for communication, and this kind of semiotic resource meets the needs of community. That is, mode is a semiotic resource employed to communicate within a group of people. However, the “semiotic resource” seems too vague to draw a clear boundary for what mode actually is and requires further explanation.

According to Jewitt (2004), mode is any organised method of expression and communication, for example, still image, gesture, position, music, handwriting, or new constructive forms of elements. This definition interprets mode as a method of expression and provides concrete examples.

Mode has various forms, such as visual, auditory, tactile, olfactory, and gustatory, which are developed through human sensory channels. Zhu (2007) identified mode based on human

senses, indicating the channel of communication such as spoken, written, and electronic. Zhu's point of view connected mode to the human senses and gave priority to audiences rather than the speakers in communication.

Bezemer and Kress (2014) adopted Halliday's (1978/2001) three semiotic functions when considering mode. That is,

to be able to convey meanings about the social relations of those who are engaged in interaction; to account for states of affairs in the world; and to be able to form complete semiotic entities, which display coherence internally and externally with the environment in which they occur. (Bezemer & Kress, 2014, p. 79)

This brought a new perspective, and these standards can be used practically to define mode in various circumstances. As long as the material is presented with interpersonal, ideational, and textual meanings, then it can be seen as a mode.

Mode is distinguished from the concept of medium. Mode is a kind of semiotic system, while medium is about how semiotics are distributed in carriers (Scollon & Levine, 2004). Further, mode is a special method by which to express message through medium, while medium itself is a tool. For instance, visual, auditory, and tactile are different types of mode, while eyes, ears, and hands are media. Writing, singing, and dancing are modes, while paper and pen, microphone and speaker, and stage properties are media (Hu, 2007).

In short, mode is the element of communication method. Mode is presented in various forms, including visual, auditory and oral.

### **2.1.2 Multimodality**

Multimodality refers to the combination of different modes to achieve a communication goal. Jewitt (2008) defined multimodality as follows:

Multimodality regards representation and communication as something more than language. It attends to the complex repertoire of semiotic resources and organizational means that people make meaning through—image, speech, gesture, writing, 3-dimensional forms, and so on. Strictly speaking, then multimodality refers to a field of application rather than a theory. (p. 357)

In this definition, multimodality challenges the idea that language is the only way of representation and communication. It enlarges its scope to many other semiotic resources such as images, gestures, and writing. In communication, most meaning is conveyed through nonverbal elements such as body features (e.g., gesture, facial expression, movement), nonbody features (e.g., Internet, speaker), as well as paralanguage features (e.g., volume, tone, speed of speech) (Zhang, 2009). In other words, communication is carried out using more than one mode, namely, multimodality.

When it comes to how to distinguish multimodal communication from monomodal communication, linguists have provided two standards: one based on the number of mode types and the other by the number of semiotic systems. The former standard states that if only one mode is involved in communication, this is monomodal, for example, listening to the radio through the auditory mode or reading novels through the visual mode. If more than one mode has been adopted, communication is multimodal. For instance, making a visual call uses multimodality because it requires listening to sound (auditory mode) as well as observing gestures and facial expressions (visual mode). The latter standard depends on the number of semiotic systems. It states that sometimes, only one type of mode is involved, such as a comic book (visual mode) or radio (auditory mode), but there are different semiotic systems: words and images in the comic book and speech and background sounds from radio. In this situation, they can also be regarded as multimodal (Zhu, 2007). Understanding multimodality and its characteristics contributes to the understanding and application of the multimodal approach.

## **2.2 Multimodal approach**

The multimodal approach has been studied in the field of language education. It was defined by Jewitt (2007) as moving

beyond language to examine how a variety of resources including colour, image, and sound, spatial and kinaesthetic resources are orchestrated to make meaning. (p. 304)

The multimodal approach suggests that language is combined with and supported by a variety of social semiotics, such as colour, image, and sound. Taking advantage of multimodal communication in the classroom, the multimodal approach may contribute to students'

engagement, curriculum production, and exploration of a more efficient pedagogy (Jewitt, 2008).

### **2.2.1 Semiotic basis for the multimodal approach**

Application of the multimodal approach is guided by three theoretical foundations in the field of semiotics. Materials in teaching can be seen as semiotic signs developed from meaning-embedded materials, which transfer information by the integration of various modes and can be adopted and improved by users. The links between materials in teaching and semiotic signs are analysed as follows.

First, materials are embedded with meaning during long practice by a community, which turn into semiotic signs. All signs have the potential to make meaning, which can only be fully understood by that community, because signs and meaning are closely related to social and cultural background (Hu, 2007). This supports the idea that not only language can be used as a tool in teaching, but also other semiotic signs such as images, colours, and sounds. The reason is that despite their cultural diversities, all human beings have something in common, and they are able to understand the meanings produced by signs. Therefore, employing the multimodal approach in TCFL classes in Australia may be feasible.

Second, different signs such as sounds, images, and linguistics are often combined to deliver the message. In the process of integration, meanings are made (Hu, 2007). This means that the way different modes are assembled and arranged influences meaning, and therefore, “multimodality can be used to build inventories of semiotic resources . . . to understand how resources are used to articulate discourses across the curriculum” (Jewitt, 2008, p. 362). The multimodal approach means users should acquire the knowledge to design a suitable pattern to make a particular meaning.

Third, people make some changes to signs when they use them to communicate, so signs can be adapted to meet the demands of communication; therefore, existing signs are reformed and new signs created (Hu, 2007). In the classroom, signs that fulfil a need can help communication between teacher and students, and the awareness of this may contribute to a configuring–designing–multimodal approach (Jewitt, 2008).

Jewitt (2008) also pointed out that although semiotic resources of language in class and curriculum have been understood, the semiotic potential of other modes such as sound, gestures, and even videos is less known. The next section reviews a number of detailed studies on specific modes. The aim is to show how semiotic signs can be used as modes in the study of different fields and the way they can be embedded in teaching.

### ***2.2.1.1 Teaching with images***

Images are part of the multimodal approach in teaching. Kress and Van Leeuwen (1996) developed a view that regarded the visual component as an independent, organised, and structured message. Using images in the multimodal approach may transfer a particular meaning and contribute to the effective delivery of knowledge that sounds and linguistic symbols cannot achieve.

With a multimodal approach, the interaction between pictures and their viewers is crucial. If the viewer is interested in the image resources, then the image is a “demand” picture (Forceville, 1999). On the contrary, if the participant is not the subject of the look, this kind of image is an “offer” picture (Forceville, 1999). For instance, a picture full of red colour is a sign of happiness, enthusiasm, and good luck in China, while it may stand for bloody or cruel in Australian students’ eyes. This dictates the importance of choosing an image that takes students as subjects rather than objects in class. In this way, students may be more likely to take part in the learning process and engage themselves in class.

In the multimodal approach, it is possible to take advantage of the image’s arrangement, because an image produces a message through the different arrangement of its elements. Three factors may influence the element arrangement. The first is the “zone,” which relates to the place in which an element occurs, such as left or right, bottom or top, centre or margin. The second is “salience,” embodied through foreground or background, size and colour, and so on. The third is “framing” as a vector between participants (Forceville, 1999). For example, Kress and Van Leeuwen (1996) believed that for Westerners, the top side is “ideal” while the bottom side is “real,” and the left side is “given” while the right side is “new.” From this point of view,

when employing the multimodal approach in teaching, the display of visual elements may have an impact on meaning learning and efficiency of teaching.

### ***2.2.1.2 Teaching with colours***

Colour is efficient in stimulating the visual sense, especially in teenagers. The multimodal approach has the potential to bring colour as a mode to TCFL classes to engage students. Colour has been used to promote cognitive understanding (Farley & Grant, 1976) and develop the classroom environment (Greene, Bell, & Boyer, 1983). Research has also studied the influence of colour on memory performance in class (Dzulkifli & Mustafar, 2013).

Kress and Van (2002) explored the grammar of colour and adopted Halliday's (1978/2001) metafunctional theory to identify colour as a mode. Kress stated that "colour fulfils these three meta-functions simultaneously but we are not arguing that colour always has and always will fulfil all three of these functions. That is because people have not discovered universal and supra-historical facts about colour" (Kress & Van, 2002, p. 350).

Kress and Van (2002) also considered differentiation, saturation, purity, value, and hue as signifier resources. First, the value scale refers to the scale of grey from light (white) to dark (black). Light and dark are essential experiences for humans, and almost all cultures have built symbolic meanings and value systems on this. In TCFL classes, more light may be advantageous to stimulate students' visual senses, while dark triggers students' curiosity.

Second, the saturation scale moves from the most intensely saturated manifestations of a colour to its softest manifestations, and ultimately, to complete desaturation. In other words, the change is from pure to pale and then to black and white (Kress and Van, 2002). Kress also pointed out that "high saturation may be positive, exuberant, adventurous, but also vulgar or garish. Low saturation may be subtle and tender, but also cold and repressed, or brooding and moody" (Kress & Van, 2002, p. 355). Due to this reason, high saturation may prevail in the TCFL class to form a positive, exuberant, and adventurous environment in which students may be more positive in their learning.

The third scale is purity, which runs from purity to hybridity. This, to some degree, indicates the potential meaning of colour. That is, pure bright colours signify modernity ideologies, while a scheme of pale and mauve colours stands for postmodernism where hybridity is preferred (Kress & Van, 2002). This may be useful when setting a basic tune for the colour in class. Pure colour may be a little outdated for young students, and it is noticeable that a hybrid of colours in images or background may be more suitable for young students.

The fourth scale is differentiation, which runs from monochrome to varied colours. High differentiation denotes adventurousness and the opposite, timidity. This may be useful when picking up colours to suit different situations. For instance, when the students need to settle down and think about a question, low differentiation is suitable, while high differentiation may help motivate students to work through their activities (Kress & Van, 2002).

The last scale is hue, which moves from blue to red. “The red end of the scale remains associated with warmth, energy, salience and foregrounding, and the blue end with cold, calm, distance, and back grounding” (Kress & Van, 2002, p. 357). This may result in using more warm colours than cold to create a friendly and close learning environment and help promote engagement.

### ***2.2.1.3 Teaching with touch***

Touch as a mode may contribute to teaching in class. Bezemer and Kress (2014) used the concepts of sensors and receptors and initiated interpretation. They then put forward two perspectives regarding touch as a resource for inward meaning making and for outward meaning making.

The inward meaning of touch includes implicit and explicit touching, with the former in the background meaning uncommunicative, and the latter brought to the fore meaning communicative. Implicit touching is the action of touching something, such as playing the piano, carrying a bag, and tapping on a touch screen, while explicit touching is a kind of touch by which to feel and explore the outside world, for instance, surfaces, textures, and temperature.

Outward meaning has been validated by Bezemer and Kress (2014) through the analysis of metafunctions. It is believed that touch can be seen as a mode of communication when it meets three standards. The first is that touch is deliberate between provider and receiver. This meets Halliday's (1978/2001) interpersonal metafunction. For example, the meaning of a handshake and touching one's shoulder varies in intensity. A firm handshake between good friends is not the same as one between a doctor and patient, which is supposed to be gentler and more considerate. The second is that people communicate through touch, and this meets the requirements of the ideational metafunction. For example, when someone taps another's shoulder, this may mean *good job*, *take care*, or *excuse me*, depending on the intensity. The third comes in the coherence of meanings from another touch or other modes when making an integrated semiotic entity, that is, contextual function. When a handshake and a tap on the shoulder happen at the same time with two hands, there is coherence with signs in the same mode. Coherence with other modes also happens when shaking hands, and at the same time saying "good job" and smiling.

According to these suggestions, touch enables one to acquire feeling about the object or the environment; in this case, touch has implicit meaning. Further, touch can be meaningful as a mode of communication, for instance, handshaking and shoulder tapping. This kind of touch has explicit meaning. However, that is not all. Assisted by transduction, which involves the change and move between different modes, touch can even be adapted to exhibit and describe in communication. There may be a new view regarding the process of the way material turns into a mode. In teaching, touch may help learn Chinese characters. Through a game, students write characters on another's palm or back, so that both of them can feel the words, and this is an interesting way to engage students.

#### **2.2.1.4 Transduction**

When taking the multimodal approach, different modes should be designed and arranged together to make a complete and smooth text. Therefore, it is inevitable to use transduction. In transduction, semiotic material moves across modes, from one mode (or set of modes) to another mode (or set of modes). In the process of transduction, touch, gestures, and sound can

be combined to form a game for students to practice what they have learned in class. Different modes also have different materiality, which is shaped by the histories of work in social settings. This leads to the specific affordances of a mode (Bezemer & Kress, 2014), which requires not only the understanding of different modes and their characters but also some cultural background knowledge in design.

### 2.2.2 Functional linguistic view of the multimodal approach

Halliday's (1978/2001) social semiotic theory of communication provided the starting point for the multimodal approach. According to Hallidayan grammar, there are three metafunctions of language, which are not bound to a specific medium: ideational metafunction, interpersonal metafunction, and textual metafunction. The ideational metafunction accounts for the way semiotic systems can indicate objects as well as their relations. The interpersonal metafunction pertains to the relations between sender and receiver of the sign. The textual metafunction deals with the ways in which signs form complexes of signs, namely, texts (Forceville, 1999).

Systematic functional grammar widens the scope of language by defining language through three metafunctions. Thus, language is not limited to the language defined as linguistic symbols in traditional ways, such as Chinese and English words; rather, it is coupled with images, sounds, gestures, and even those signs felt through olfactory sense and taste sense. All signs that fulfil three metafunctions can be seen as a mode, which leads to the emergence of multimodality and the multimodal approach.

With the multimodal approach, varied modes or the combination of modes may facilitate communication between teacher and students as well as help effectively express the meaning of a particular object. For example, Chinese characters are pictographs and their meanings come from the figures and stories behind characters. In this case, the multimodal approach user is apt to employ different modes such as images, videos, and paintings to illustrate meaning to help students understand and engage.

### 2.2.3 The multimodal approach and cultural difference

The multimodal approach employs a variety of semiotic resources, which are shaped by members of a community in accordance with the community's concerns and needs. Any

semiotic resources, including language, belong to part of a community's culture and reflect its values. These resources are different between communities and even within one society (Kress, 2012). When a Chinese teacher from an Asian culture teaches a group of Australian students with Western cultural backgrounds, the semiotic resources adopted in the multimodal approach may represent diverse meanings. For example, the number seven in China is not a lucky number, because its pronunciation sounds like “angry” in Chinese. However, this is not the case in the Australian context. Therefore, cultural differences may add to the complexity when employing the multimodal approach to teaching Chinese in a Western setting, such as Sydney schools, which may need to be considered in the teaching plan.

The multimodal approach is also embodied with specific judgements, which rely on the community and its culture. The characteristics of a mode will vary not only from one community to another but from the use in one community to that of another. For example, the features of the writing mode may not be the same in the legal community as those in the surgical community (Kress, 2012). In other words, a particular mode in teaching may be different from that in other situations, which requires consideration in multimodal approach design.

### **2.3 The application of the multimodal approach in language teaching**

The multimodal approach has been studied and employed in language teaching, especially in teaching English both as a first language and foreign language, and even in a literature class. Efforts to research and apply the multimodal approach in TCFL classes have also been made.

Lotherington and Jenson (2011) employed the multimodal approach in the activities of American schools to help students understand difference among languages. A school-wide understanding of the multimodal approach was reached among students school-wide. For example, students and their parents were invited to read a phrase in an English book *Whoever We Are*, draw a picture to show what they had in their minds, and then rewrite the English phrases in their mother tongue (both spoken and written). Their work was collected to produce a multimodal book that involved multiple languages, sounds, and texts. This contributed to students' understanding of difference among languages (Lotherington & Jenson, 2011). It proved to be a fruitful attempt to employ the multimodal approach in language learning,

especially in the understanding of different languages. However, in Lotherington and Jenson's research, little investigation into the relationship between modes, learners, and teaching content in language education was made.

In TEFL, Zheng, Young, Wagner, and Brewer (2009) explored how the multimodal approach to digital games helped Chinese students engage with learning English as a foreign language. Through the game *Quest Atlantis*, students were provided a problem-solving-natured virtual world to cooperate and interact in English with other players in the game. When students played the game, they were exposed to a multimodal learning environment such as words, sounds, gestures, and movements. In this multimodal environment, the student players found clues through interaction with other roles in English and then solved the problems in English. This was shown to motivate students' language learning (Zheng et al., 2009). However, the limitation of this multimodal approach to learning English in this project was that students' speaking skills were overlooked.

The multimodal approach has also been found in the teaching of literature. Ajayi (2015) conducted research in two high schools to find out how English language art teachers take advantage of the multimodal approach to help students interpret *Romeo and Juliet* and *Macbeth*. The research question guiding that study was: "How do the English Language Art teachers scaffold and support students to use new media-based practices and social interests as classroom resources for multimodal interpretation of *Romeo and Juliet* and *Macbeth*?" (Ajayi, 2015, p. 69) The study highlighted the link "between textual interpretation and students' social interests and agency" (Ajayi, 2015, p. 72) and explored more agency to promote students' multimodal interpretation and help form their understanding. It also mentioned students' motivation and modal preference. The multimodal approach made it possible for students to use more media to interpret the plays through multimodal resources. It also offered more opportunities, by accessing YouTube, to show students how to interpret Shakespeare's work using today's social approaches, which enabled teachers to bring new elements to *Romeo and Juliet* and *Macbeth* to arouse students' interest (Ajayi, 2015).

The findings in this study show that the multimodal approach makes it possible for students to adopt multiple interpretative angles and varied modalities when they read complex

texts. This study set an example for bringing the multimodal approach into language teaching. It contained rich interaction among different modes, between teacher and students, using well-prepared and content-related modes representing the intended meaning. However, there is still a need to find out what kinds of modes or combination of modes actually motivated students in literacy practices.

The multimodal approach has also been practiced in TCFL classes. Huang and Huang (2012) studied their planned lessons using the multimodal approach and analysed data collected from teaching. The participant students were a group of American children aged between 6 and 12 years old, who were studying in a private school in Northern China. Through the collection of lesson plans, interviews with teachers, and the reaction of students, they studied how the multimodal approach was used in a TCFL lesson. Initially, to engage students and bring in the topic “body,” the teacher showed them two colourful screenshots of a comic “象不像” (xiang bu xiang) and played one of its segments. This is believed to stimulate students’ visual and auditory senses. In the section on knowledge building, the students filled the colours of each part of an elephant in the picture and touch was adopted to help engage them. As for practice, the teacher employed flash cards to repeat the vocabulary related to the body, sang a song to reinforce the memory of some key words, and asked students to write down the characters. In this process, the multimodality contained visual modes, auditory modes, and touch modes.

The coherence of multimodality was also discussed by Huang and Huang (2012) in their research. The oral mode is the teacher’s main mode in class and others complement, reinforce, and optimise. At the same time, the oral mode played the role of lubricant. Another way to make connections among different modes is the ration of usage of different modes in the lesson. In this case, students found out questions from a picture, had the opportunity to guess the words to express the body, filled in colour for every part of body, sang a song to reinforce key words, and finally, watched the example presented by the teacher’s own body (Huang & Huang, 2012). In this way, different modes were used to maintain student engagement.

Huang and Huang (2012) pointed out that in the multimodal approach, different modes (words, colours, size, and pictures) reflect the interest of the designer. Teachers should consider students’ interest and preference when designing a lesson rather than their own interest. Their

study provided a concrete example for the application of the multimodal approach in a TCFL class. However, as for other research, because of the limitation of words and examples, there remains a lack of suggestions as to what kinds of combination of modes engage students to the maximum.

Multimodal approaches have been used in other areas, as well. They have been used to increase effects in learning, especially from illustrated texts (Peeck, 1993) and in the engagement of adult immigrant language learners (Bonham, 2013). Studies can also be found in teaching French vocabulary (Porter, 2016) and classical voice (Nafisi, 2013). Touch has been used to teach history (Salleh & Ismail, 2013), snowboarding (Spelmezan, 2012), and mathematics (Calik & Kargin, 2010).

### **2.3.1 Discussion of application of multimodal approach in language teaching**

The multimodal approach in language teaching has been reviewed. The literature covers the fields of first and second language teaching, both in and out of class, and even in the English literature class. Lotherington and Jenson (2011) reviewed the multimodal language teaching activities in a primary school and found that the richness of linguistic differences helped students to understand difference among languages. In TEFL, Zheng et al. (2009) studied a multimodal approach carried out through digital games. They stated that the multimodal virtual environment and problem-solving nature of that kind of multimodal approach motivated and engaged students in second language learning. Ajayi (2015) brought the multimodal approach into an English language art class to empower students to gain a multimodal interpretation of Shakespeare's plays. She claimed that the multimodal approach enabled students to adopt multiple interpretative views and different modes when reading complex texts. Besides teaching English, Huang and Huang (2012) published an article showing an example of how to employ the multimodal approach in a TCFL class, noting that with a multimodal approach, teachers often choose different modes (words, colours, size, and pictures) according to their own interest and claimed that teachers should consider students' interest and preference when designing a lesson.

However, there are still flaws in the existing research. First, there is a lack of clear meaning made by multimodality and the interaction between modes and participant. Second, it is hard to help students learn language in a virtual world in the same way as in the real world. Third, it is still not easy to find out what kinds of modes or combination of modes can motivate students in literacy practices. These gaps leave room for the researcher to contribute. By carrying out action research in a TCFL class in a Western Sydney school, this research aimed to explore the research question: “How can a teacher employ the multimodal approach for beginning learners to engage with learning Chinese as a foreign language in Sydney schools?” The three gaps identified above will also be solved by three contributory questions, respectively.

## **2.4 Teaching Chinese as a foreign language**

This section reviews the challenges for beginning teachers of TCFL in Australia. It first identifies the weakness of teachers who speak Chinese as a first language in a TCFL class. Based on the weakness, how to teach Chinese with Australian characteristics will be explored. This section will then focus on the young beginning learners’ learning characteristics, which might influence their learning and the teaching effects in class.

### **2.4.1 The challenge of teaching Chinese as a foreign language in Australia**

As beginning teachers from China teaching in Australia, they may encounter challenges in the areas of presenting socially and linguistically, relating well to Australian children and managing a local classroom (Orton, 2008). They may have limited understanding of how to relate to Australian school learners, colleagues, and parents, and student engagement can be diminished. Another factor is that pedagogy from China, which mainly focuses on lecturing, taking notes, and doing exercises, may not be suitable in Australia to meet the expectations of teaching outcomes (Wang, Moloney, & Li, 2013). The teachers’ experience has a significant impact on their teaching style. In China’s schools, students are often required to listen to the teacher for a long time and make notes where necessary. The teachers with this background would assume that giving a lecture should be the essential part in teaching, no matter whether this is in China or Australia. However, due to the difference of students’ learning style in Australia, which

focuses more on exploring knowledge than having knowledge, inappropriateness might show itself in this kind of teaching method. This includes teachers' lack of encouragement and patience with learners and the tendency to blame them, the ways they produce negative attitudes toward Chinese language in their classrooms, and the lack of appreciation of the value of the learner's first language in learning a second language (Zhang et al., 2011).

To improve teaching effectiveness and to meet the standard of language classes, teaching Chinese with Australian characteristics has been discussed. According to Singh and Jinghe (2014), Australian characteristics first include adopting an education program for the professional learning of teachers of Chinese, which is preferable to a language-acquisition-oriented linguistic focus. Further, teaching Chinese with Australian characteristics contains the approach that sets the learner as central, carefully selecting content that can be absorbed by young learners. This requires teachers to learn to be responsible for students' actual learning of Chinese. To achieve this goal, the teachers "generate content for the teaching/learning of Chinese from learners' recurring everyday sociolinguistic activities performed in English and thus build on their existing sociolinguistic knowledge" (Singh & Jinghe, 2014, p. 419). The teachers also need to develop innovative pedagogies of teaching for transfer from the learners' L1 (English) to Chinese (L2). The suggestions from Singh and Han showed a demand for pedagogies that put students at the centre of the classroom, closely related to the local culture, students' prior experience, and their daily life, to ease the Australian students' learning of Chinese.

The researcher adopted the multimodal approach to assist his teaching, believing that this approach has the potential to meet the challenges of teaching Chinese in Australia by generating content from students' own lives, to link their experiences, and to present the content in a way that students respond to.

#### **2.4.2 The characteristics of young beginning learners**

Before teaching the students, we should know them, especially how they learn. Therefore, it is necessary to understand young beginning learners' characteristics for the improvement of

teaching effectiveness on students' learning. Harmer (2001) studied the characteristics of children when they are learning a language, and his findings are summarised and listed below.

Table 2.1. *The Characteristics of Young Children Learning a Language*

<b>Content</b>	<b>The characteristics of young children learning a language</b>
Individual word	Respond to the meaning even if they do not understand individual words
Learning way	Indirect rather than direct; take in information from all sides rather than from topics they are being taught
Understanding	From what they see, hear, touch, and interact with, rather than just from explanation
Enthusiasm	Display a curiosity about the world around them
Sense of achievement	Need for individual attention and approval from the teacher
Talking and learning content	Are keen to talk about themselves and learn about themselves and their own lives quickly as main topics in the classroom
Attention	Have a limited attention span; easy to get bored and lose interest after 10 minutes or so

(Summarised from Harmer, 2001, p. 82)

According to Harmer's (2001) theory, young learners develop their understanding through what they see, hear, touch, and interact with, rather than just from explanation, and they have a limited attention span. Based on these characteristics, the teacher researcher ought to provide information in various ways to stimulate students' different senses, such as visual, auditory, and tactile. This can be achieved by utilisation of the multimodal approach, which goes beyond explanation and offers a varied sensory experience to students. With colourful pictures and different activities designed for the multimodal approach, students' attention can be caught easily, although it cannot last long.

It has also been mentioned that young learners are curious about the world around them and are keen to talk about themselves and to learn about themselves and their own lives. When taking advantage of this kind of content, students are more likely to engage in class and learn the Chinese language. Cummins (2008) argued that students use their prior understandings,

integrate factual knowledge into their conceptual frameworks, and employ metacognitive strategies to control their learning. For the teacher researcher, this means that to learn Chinese, language learners might use their prior understanding of their first language, integrate what they know from their first language, develop knowledge of the target language (Chinese in this instance), and encourage the use of metacognitive strategies.

Further, students' attention and sense of achievement are also factors that should be taken into consideration in teaching. As young learners need individual attention and approval from the teacher, feedback from the teacher is essential to build students' confidence and the will to continue to learn Chinese.

## **2.5 Student engagement**

Student engagement is an essential concept in this thesis. This part reviews a definition of engagement, provides an evaluation of student engagement, and discusses ways to promote engagement.

### **2.5.1 Definition of student engagement**

Definitions of student engagement have been given by researchers from both psychological and psychological perspectives. Marks (2000) defined engagement as a psychological process, namely, the attention, interest, investment, and effort that students put into learning. The definition given by Klem and Connell (2004) considered student engagement as a process of "student psychological investment and effort directed toward learning, understanding or mastering the knowledge, skills, or crafts that academic work is intended to promote" (p. 3). These ideas generally focus on a single dimension and regard engagement as an "investment," while other studies tried to define student engagement from multiple dimensions.

Fredricks, Blumenfeld, and Paris (2004) illustrated student engagement in a multidimensional way, believing that behavioural, emotional, and cognitive dimensions are integrated with student engagement. Focusing on these three aspects, they provided descriptions of student engagement. Behavioural engagement is generally considered as the idea of participation, including the involvement in academic, social, and extracurricular activities, and

is essential in promoting positive academic outcomes and reducing withdrawal. Emotional engagement draws on the idea of students' reactions to teachers, classmates, academics, and school. It refers to inner processes such as "students' affective reactions in the classroom, including interest, boredom, happiness, sadness, and anxiety" (Fredricks et al., 2004, p. 63). It is presumed to develop a relationship with institution and help form students' willingness to learn. Cognitive engagement encompasses intelligence and thinking, especially students' investment of effort to comprehend complex ideas and master difficult skills (Fredricks et al., 2004, p. 60).

To sum up, behavioural, emotional, or affective and cognitive elements are regarded as the three key dimensions of engagement:

Behavioural engagement encompasses doing the work and following the rules,  
Emotional engagement includes interests, values and emotions,  
Cognitive engagement incorporates motivation, effort, and strategy uses.  
(Fredricks et al., 2004, p. 65)

This part reviewed the definition of student engagement. Student engagement can be seen as a process by which students physically follow rules and do the work, emerging with positive emotions and having an interest in and valuing the learning. Students also develop strategy and generate concepts in learning after making effort and reflecting on themselves.

## **2.5.2 Evaluation of student engagement**

To evaluate student engagement, it is necessary to have something to compare. This part reviews the literature about evaluation of student engagement and collects ideas of engagement measurement, indicators of engagement, and engagement levels.

### **2.5.2.1 Methods**

In the field of educational research, the most common methods used to measure engagement are questionnaires and learner surveys. Researchers have also employed physiological techniques, such as analysis of facial expressions and body language (Hughey, 2002), measurement of physiological factors such as tracking of eye movements (Renshaw, Stevens, & Denton, 2009) and heart rate and brain activity (Nacke & Lindley, 2008). Qualitative

approaches have also been employed, such as interviews and video analysis (Davies & Dodd, 2002) and qualitative analysis of learners' actions (Bouvier, Lavoué, Sehaba, & George, 2013).

#### ***2.5.2.1 Indicators***

Indicators in terms of behavioural engagement refer to effort, persistence, concentration, attention, asking questions, and contributing to class discussions, as well as completing homework and complying with school rules. Those of behavioural disengagement include frequency of absences and tardiness, fighting or getting into trouble, and interfering with the work of others (Fredricks et al., 2004).

Signs of emotional engagement incorporate student–teacher relationships (whether students and teachers are getting along well with each other). They also include students' values placed on school and schooling (for example, that Chinese will be useful in the future) as well as an orientation toward work transferable skills and attitudes (sticking to tasks and maintaining an interest in things that last for a long time) (Fredricks et al., 2004).

Indicators of cognitive engagement are self-monitoring, exchanging ideas, giving directions, justifying an answer, using learning strategies and control strategies, persistence, relating the task to prior knowledge, and requesting clarification (Fredricks et al., 2004).

#### ***2.5.2.2 Levels***

Engagement can be categorised into different levels. Whitton and Moseley (2014) gathered ideas from researchers about levels of engagement and developed a six-level model. The six levels refer to participation, attention, captivation, passion, affiliation, and incorporation.

Participation (engagement as doing) is the first level of engagement, which concerns the behavioural component of engagement (Fredricks et al., 2004) and academic engagement, such as time spent on a task. The second level of engagement is attention (engagement as commitment). The learner at this level makes a purposeful commitment to take part in an activity. This is more than simply undertaking actions, but shows a willingness to pay attention to the activity on a cognitive level and show a positive attitude (Whitton & Moseley, 2014). Captivation (engagement as enthrallment) is the third level, which is similar to the attention

level but signifies a situation that a person can be deeply immersed in a task at a cognitive level (Whitton & Moseley, 2014). The fourth construction of engagement is passion (engagement as feeling). It highlights the emotional or affective level of engagement where students build a strong emotional tie, such as empathy, excitement, or anger. Affiliation (engagement as belonging) forms the fifth level, which encompasses the idea that students see themselves as part of a group or class in a meaningful way. Students at this level are more likely to interact with peers (Whitton & Moseley, 2014). The last construction of engagement is incorporation (engagement as being). Students are an integral part of the class, sensing a feeling of presence while being totally immersed in learning. At this level, students' physical actions, thoughts, and emotions create a transformation in being. Of the six levels of engagement, the first two (participation and attention) belong to superficial engagement, while the last four (captivation, passion, affiliation, and incorporation) belong to deep engagement (Whitton & Moseley, 2014). Table 2.2 clearly shows the engagement types and their levels.

Table 2.2. *Types of Engagement*

Superficial engagement	Participation	Engagement as doing
	Attention	Engagement as commitment
Deep engagement	Captivation	Engagement as enthrallment
	Passion	Engagement as feeling
	Affiliation	Engagement as belonging
	Incorporation	Engagement as being

(Whitton & Moseley, 2014, p. 10)

### 2.5.3 Engagement promotion

This part reviews the factors that may promote student engagement. To engage students in learning, the curriculum and activity must contain interaction, exploration, relevancy, multimedia, and instruction (Windham, 2005). The researcher paid attention to these factors and applied them to his teaching.

### ***2.5.3.1 Interaction***

Interaction requires a respectful relationship and communication, which have been shown to promote students' engagement in learning. In detail, students want stronger relationships with their teachers, with each other, and with their communities—locally, provincially, nationally, and globally. They want their teachers to know them as people, and for them to know how they learn. They want their teachers to take into account what they understand and what they misunderstand, and to use this knowledge as a starting place to guide their continued learning. Students want their teachers to establish learning environments that build interdependent relationships that promote and create a strong culture of learning (Taylor & Parsons, 2011). Before teaching, it is essential to establish such relationships and to know one's students, including what they like and how they learn (Taylor & Parsons, 2011). The learning environment is also critical, which could increase students' motivation to learn by collaborative and competitive learning (Ames, 1992; Hung, Young, & Lin, 2015; Lam, Yim, Law, & Cheung, 2004; Slavin, 2015).

### ***2.5.3.2 Exploration***

Today's learners ask for the opportunity to explore and to find solutions and answers for themselves (Windham, 2005). Students are drawn toward alternative ways of learning, such as video games and social media. These might lead to a characteristic of students' learning, which highlights hands-on, inquiry-based approaches rather than absorption of what is put before them (Hay, 2000). They also tend to try things themselves by exploring what something is and how it works (Taylor & Parsons, 2011). This can be linked to Brown's (2000) model of "navigation, discovery and judgement" (p. 14), which requires resources from beyond the classroom, such as an excursion, online research, or a survey of a community. This can be useful when making lesson plans and designing the multimodal approach. The teacher may organise the student's research, in-class scene stimulation, and excursion.

### **2.5.3.3 Relevancy**

Nowadays, students prefer their learning to be applicable to real life whenever possible, rather than being theoretical and text based. Dealing with authentic problems or community issues engages students and helps to develop a sense of purpose in the learning experience (Taylor & Parsons, 2011). In a report by the Children, Youth, and Families' 2004 National Research Council, to keep young people in school, engaged, and motivated, two key ideas emerged: (1) forming good connections between learners and the social contexts in which they learn and (2) making curriculum and instruction relevant to their experiences, cultures, and long-term goals. This is closely connected to prior knowledge, which is interdependent on the idea of learning with an understanding of the learning process (Bransford, Brown, & Cocking, 2000). Further, Claxton (2007) suggested that activities and curricula should have the following factors to engage learners:

- (1) Relevancy: the topic connects with students' interests and concerns;
- (2) Responsibility: students have genuine control over what, why, how, and when they organize their learning; and
- (3) Reality: solving problems or making progress genuinely matters to someone. (p. 12)

The suggestion from relevancy for the teacher researcher's teaching is that students should be the centre of learning and that the teacher provides information that concerns them. Students need to feel a sense of controlling their own learning and that what they are doing is valuable.

### **2.5.3.4 Multimedia**

Technology facilitates students' learning, as it brings information and experts from far away. Multimedia and technology (cameras, video and video editing, projectors, Smart Boards, sound recording equipment, animation and gaming software, and the ubiquitous PowerPoint™) have proven helpful in engaging students in learning about subjects. They have also shown potential in exploring ways to present their learning and in helping students control their learning (Taylor & Parsons, 2011). The support of multimedia promotes classroom activity management, time saving, and better presentation of class assignments. The outcomes of increased access to technology in classrooms increases student engagement, such as taking initiative and

responsibility for learning, using resources wisely, time on task, and having the interest and desire to pursue information and learn in and beyond classrooms. Technology and multimedia are partly the basis for the multimodal approach, and the teacher researcher made full use of multimedia to engage students.

#### ***2.5.3.5 Engaging instruction***

The learning environment and curriculum are two factors that influence student engagement. Creating an engaging learning environment consists of students feeling able and safe to challenge teachers as part of the learning process. It also includes the need for students to learn interpersonal skills to engage in dialogue respectfully, as well as learn the subject content. Students ask for more autonomy to engage in and design their own learning (Taylor & Parsons, 2011). The learning environment was also explored in other studies (Elkind, 1967; Lage, Platt, & Treglia, 2000; Turner, Thorpe, & Meyer, 1998).

In contrast to the statement that today's students are asking for a diluted or moderated curriculum, research shows that students prefer to be held to high expectations: They also desire quality, a rigorous and meaningful curriculum, and high academic goals. They long for quality instruction delivered in socially, emotionally, and intellectually engaging ways.

#### ***2.5.3.6 Assessment for learning***

Assessment for learning (AFL) requires that teachers utilise formative assessment practices to monitor student success and develop conversations with students about how they are learning.

It is noted that AFL improves student engagement and is more about learning for further development rather than marking to standard expectations or meeting externally dictated measures. Standardised testing often leads teachers to teach to the test rather than to a learner's needs, interests, and abilities, which takes the responsibility and accountability away from the learner (Armstrong, 2006).

AFL should be carefully designed and used. Barrett (2005) provided 10 research-based principles of AFL to guide classroom practice:

- AFL should be part of effective planning of teaching and learning
- AFL should focus on how students learn
- AFL should be recognized as central to classroom practice
- AFL should be regarded as a key professional skill for teachers
- AFL should be sensitive and constructive because any assessment has an emotional impact
- AFL should take account of the importance of (and foster) learner motivation
- AFL should promote commitment to learning goals and a shared understanding of the criteria by which they are assessed
- AFL develops learners' capacity for self-assessment so that they can become reflective and self-managing
- AFL should recognize the full range of achievements of all learners should receive constructive guidance about how to improve.

(Barrett, 2005, p. 17)

The teacher also should provide feedback to students to reduce discrepancies between current understandings and performance and a goal (Winne & Butler, 1994). Feedback can be a powerful tool in assisting AFL (Boud & Molloy, 2013; Hattie & Timperley, 2007; Sadler, 1989). In the multimodal approach, the teacher researcher may adopt a feedback strategy to help engage students.

## **2.6 Conclusion**

In this chapter, the multimodal approach and key concepts such as mode and multimodality have been introduced. Theoretical foundations for the multimodal approach have been reviewed, namely, semiotic basis, linguistic basis, and cultural elements. By reviewing the application of a multimodal approach in language teaching, research gaps were identified. Literature of TCFL has been reviewed, as well as literature about student engagement, the measurement of engagement, and factors to influence engagement. The next chapter focuses on the methodology of this research.

## **Chapter 3 Methodology**

### **3.0 Introduction**

Chapter 2 reviewed the current literature and found the research area to which this study can contribute. This chapter focuses on the research methodology of the study. The research question was: “How can a teacher employ the multimodal approach for beginning learners to engage with learning Chinese as a foreign language in Sydney schools.” To find answers to the research question, action research and qualitative research methods were adopted. Five sections were further introduced, namely, action research, research design, the data collection method, the data analysis method, and research principles.

### **3.1 Action research**

This study was designed as an action research. This is because action research focuses on improvement of teaching through practice and self-reflection, which is suitable for and contributes to the research question. Action research was described by Carr and Kemmis (1986) as a

form of self-reflective enquiry undertaken by participants in social situations in order to improve the rationality and justice of their own practices, their understanding of these practices, and the situations in which the practices are carried out. (p. 162)

This description provides the view that action research in class is a method of finding out what works better in a particular classroom so that teaching can be improved. Since teaching and learning in various classes are also different from each other in terms of content, students, and teachers’ skills, as well as teaching and learning styles, teachers should develop their own efficient ways of teaching (Mettetal, 2012). It also indicates that action research is more concerned about self-reflection. This means teachers reflect on their teaching, adapt their teaching, and find out better ways to help students’ learning. This kind of research method is advantageous for the teacher researcher at the beginning stage of teaching who lacks experience. The frame of action research also facilitated the teacher researcher to improve rationality and

justice of his practice, understand these practices, and help students' engagement in the TCFL class.

Another reason for designing this study as action research is that it features problem-solving and changes in process, as Pine (2009) describes:

Action research is a process of concurrently inquiring about problems and taking action to solve them. It is a sustained, intentional, recursive, and dynamic process of inquiry in which the teacher takes an action—purposefully and ethically in a specific classroom context—to improve teaching/learning. Action research is change research, a nonlinear, recursive, cyclical process of study designed to achieve concrete change in a specific situation, context, or working setting to improve teaching/learning. (p. 30)

According to this definition, action research is a process to solve problems through a series of methods. Researchers make plans and implement them, using suitable tools to collect and analyse data. They then change their ways and come up with new ways, which contribute to improvement in teaching and learning (Tomal, 2010). Moreover, two distinct features made action research appropriate for implementation in the teacher researcher's class. The first places less concern on statistical analysis and more on self-reflection (Tomal, 2010). This facilitated the research process for the teacher researcher, who had no qualified statistical knowledge yet still longed for continuous improvement through his own research. The second feature is the collaborative nature of the work (Tomal, 2010), which contains a systematic process of data collection, analysis, and feedback; this process repeats itself, or in other words, is a "self-reflective spiral of cycles" in action research. A self-reflective spiral of cycles of planning, acting, observing, and reflecting is central to action research (Carr & Kemmis, 1986). A complete action research study starts from one pattern of practices and understanding and ends with a new situation (Carr & Kemmis, 1986). In this process, some practices and elements keep working to make improvements in the new cycle, while others are cancelled; some new practices and elements are added and tested, while old ones are discarded (Carr & Kemmis, 1986). A typical action research involves more than one cycle to collect sufficient data, offering the chance to revise plans and make comparisons to make a real improvement in the spiral. The teacher researcher adopted several successive cycles, built new plans on the base of the previous work, and sought answers for the research questions.

### 3.2. The design—two cycles

This study was designed as two-cycled action research through two consecutive school terms. In each cycle, eight lessons from Week 2 to Week 9 were considered, with Week 1 and Week 10 omitted for the flexibility of the beginning and end of each term.

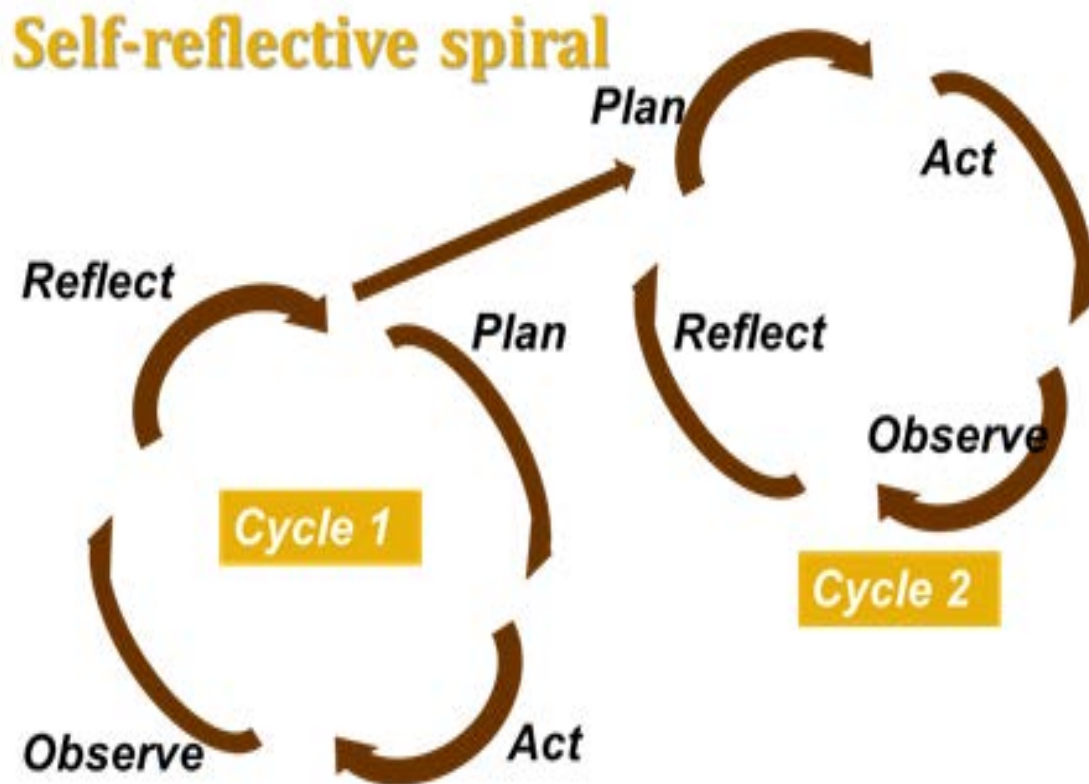


Figure 3.1 Self-reflective spiral.

As shown by the blueprint made by the self-reflective spiral shown in Figure 3.1, each cycle includes four steps: planning, acting, observing, and reflecting. The teacher researcher planned the whole term, including detailed lessons, and the multimodal approach was built into the lessons. For instance, music, gestures, games, or pictures were included in the teaching plan. When the teaching was delivered, observations of students' reactions to the implementation of the multimodal approach were objectively recorded. The teacher researcher also conducted self-reflective journals, based on the observations after each lesson, in terms of what aspects of the strategies used worked and what did not work, and what could be considered and built into the

next teaching plan. With these four steps completed, at the end of the cycle, the researcher made a conclusion of this cycle and came up with adjustments in the new plan for the next cycle.

### **3.2.1 Site selection**

P public school with around 800 students was the site for conduct of this research, located in the Western Sydney region. P public school had been participating in the ROSETE program, and the teacher researcher was assigned to teach Chinese for 18 months as a volunteer. The school's purpose was to introduce a foreign language for students to learn and experience, and this made possible the research to be carried out in the school.

### **3.2.2 Participants**

The participants in this research were the researcher and the students he taught. The researcher was an indispensable part for the participants, because he carried out the action research, including preparing lesson plans, implementing the teaching, observing students' reactions, and reflecting on his own teaching and students' reactions to his teaching. The student participants were Stage 4 students. They were around 13 years old, and most of them were English speakers, two living with a family from a Chinese background. The ROSETE program had been implemented in P public school for five years, and the students voluntarily selected Chinese lessons in Year 7 and Year 8.

## **3.3 Data collection**

Data was collected through documents (lesson plans), participatory observation, the teacher researcher's reflective journals, questionnaires and focus group interviews.

### **3.3.1 Document: Lesson plans**

Lesson plans embedded with the multimodal approach is part of the data. As written, visual, digital, and physical material relevant to the study at hand (Merriam, 2009), the teacher researcher's lesson plan was necessary and valuable data. There were two terms in the whole research, and each term contained eight lesson plans. The researcher wrote detailed plans for

each lesson for the whole term, including multimodal strategies and/or activities in class. The multimodal approach was carefully built into the process of how to engage students, build their learning, and help them internalise their learning. These plans were used as a reference to compare the observation data (that is, what actually happened in the class). An example of a lesson plan is show as Table 3.1.

Table 3.1. *Example of Lesson Plan*

<b>Lesson outcomes:</b> 1. To learn food in Chinese (spring roll, fried rice, honey chicken, sweet sour pork and dim sum) 2. To understand the “borrowed words” between languages “dim sum – dianxin,” “buck choy – baicai,” “qiaoke li – chocolate,” “san mingzhi – sandwich” 3. To know the different eating habits between Chinese people and Australian people 4. To learn how to use chopsticks and the culture behind chopsticks	<b>Lesson outline:</b> Do now – Chinese food items – “borrowed words” – practice – video about Chinese – chopsticks practice  <b>Chinese concepts:</b> Food “Borrowed words” Chopsticks		
<b>A. Engagement</b>			
6’ Write down five words which come to your mind when you see the words “Chinese food”			
<b>B. Knowledge building</b>	<b>&amp; Transferring</b>	<b>&amp; Presentation</b>	<b>&amp; Evaluation</b>
9’ (1.5’ *6) Teacher writes Chinese food items (characters, <i>pinyin</i> and meanings) on board and provides pronunciation	Students copy characters, <i>pinyin</i> and meanings  3’ Reading after teacher	6’ “ <u>Listen and show me your gesture</u> ” activity  2’ Flash card practice	<i>According to student’s performance in activity</i>
3’ Explain the “borrowed words” from other languages	4’ Students think about the “borrowed words” in their daily life	4’ Discussion about “borrowed words”	
6’ “Chopstick” video and tell the story “The origin of chopsticks”	14’ Students practice using chopsticks and put paper balls (with Chinese food items on them to the related picture) with chopsticks	8’ A race between two groups, put paper balls into right places as fast as possible	
<b>C. Brief conclusion and culture experience time</b>			
2’ Read food items aloud a couple of times    3’ Introduction of next lesson    5’ Video appreciation			

### 3.3.2 Participatory observation

Data was also collected from observation, which reflected students’ reactions to the multimodal approach. Based on its purposeful, systematic, and selective nature, observation requires the

researcher to watch and listen to the interaction of students toward a particular phenomenon as it takes place (Kumar, 2005). Therefore, when observing, the researcher must objectively record the reaction of students toward the methods set in class. In observation, the teacher researcher is supposed to hear, see, and experience reality as the participants do (Marshall & Rossman, 2001). Observation also has its advantage in recording what cannot be counted in quantity, such as students' nonverbal reactions to what happened in class (Mertler, 2009). This contributed to the collection of data relating to students' engagement in the teacher researcher's multimodal approach embedded in the TCFL class. For instance, a graceful smile during a multimodal activity can be seen and recorded through observation, which might indicate that the student is interested in class.

An observation sheet was employed, which made it possible for the teacher researcher to collect data effectively while teaching. An observation sheet is "a single page with some key phrases to remind you of what you are looking for and some blank space to make notes" (Saginer, 2008, p. 134). Much could be recorded during the class, yet some of this might be useless. Hence, emphasis should be put on the certain points related to the multimodal approach. With an observation sheet, the researcher made it clear what the observation points were, when the students' reactions should be noted, and how to make full use of the time balancing teaching and researching. Table 3.2 is an example of an observation sheet related to the multimodal approach.

Table 3.2. *Observation Sheet*

No.	Knowledge	Multimodal activities	Student reaction
1	Number 1–10	Three in group: The first can see the Arabic number (visual) and write it on the second's back (touch); The second feels the number and shows gestures to the third (gestures); The third sees the gestures showing the number and speaks aloud in Chinese (oral discourse and auditory).	
2	...	...	...

This sheet was used to scaffold the recording of a multimodal activity when teaching numbers 1 to 10. Three volunteers were invited to play a game to practice the sounds, characters, and gestures of numbers 1 to 10 (see Table 3.2). During this multimodal game, the teacher researcher paid special attention to both participants' and audiences' reactions, for instance, their facial expressions, their movements, and what they said in reaction to this activity. This kind of data helped the researcher identify whether students were engaged. The researcher completed the observation sheet after each class to guarantee the accuracy of the data.

### **3.3.3 The teacher researcher's reflective journal**

The teacher researcher's reflective journal is an essential part of data collection. Through reflective journalling, the teacher researcher had the chance to think and rethink about the planned and delivered lessons to identify any problems. To explain further, the teacher researcher adjusts new plans to make improvements (Pine, 2009). By writing reflective journals, the teacher researcher gains the opportunity to maintain narrative records of reflection related to the multimodal approach on practice (Mertler, 2009). Moreover, in this process, the teacher researcher explores the planning and outcomes of curricular, instructional, relational, and other classroom activities (Cole & Knowles, 2000).

In this research, reflective journals were written after each lesson, followed by the process of (a) engaging with reflection, (b) thinking reflectively, (c) using reflection, (d) sustaining reflection, and (e) practicing reflection (Stanley, 1998). The focus was on whether the multimodal approach materials related to the content and whether the multimodal activities appealed to the students. The teacher researcher then revised the lesson plan and carried out another cycle to make improvements.

### **3.3.4 Questionnaire**

The questionnaire is an appropriate data collection tool for both qualitative and quantitative research, which makes convenient the collection of data from a large number of participants. The research needed participants' opinions of multimodal approaches to achieve validity and reliability of data. The teacher researcher prepared questions around multimodal approaches,

and students were expected to complete the questionnaire with “yes” or “no” and some simple sentences. The teacher researcher organised the questions and received replies without the need to talk to every respondent (Walliman, 2011). The questionnaire is also an effective method to collect data from young students, as it reduces pressure on students by avoiding face-to-face talk, which could involve embarrassing questions and make them feel uncomfortable. When students complete a questionnaire, they do not need to write down their names and the teacher researcher is not present, which provides a fair chance to obtain a true reply to even embarrassing questions (Robson, 2002). However, the teacher researcher did not ask any such embarrassing questions and considered the ethics when dealing with children. There is one more advantage of using a questionnaire; that is, the extensive standardisation due to its aiming at producing “comparable answers from all participants” (Flick, 2011, p. 106). The teacher researcher used a simple and straightforward questionnaire to study students’ opinions toward multimodal methods and the reasons that led to their points of view. Before the young students completed the questionnaires, the teacher researcher explained the questions to them. They were given sufficient time to complete it. An example of a student questionnaire is shown in Table 3.3.

Table 3.3. *Example of Student Questionnaire*

<p>During a previous lesson, we have had an activity “Whisper/ touch to your group member then colour in the clothes” when we learned clothing,</p> <p>1. Do you still remember it? _____</p> <p>2. What do you think about our activity? (Is there anything about the activity you like or dislike?) _____</p> <p>3. Why? _____</p> <p>Thanks!</p>
---

### 3.3.5 Focus group interview

A focus group was also used to collect data from students. Focus groups are bestowed with the potential to raise consciousness and empower participants (Faith, 2012). In the focus group, a few students were gathered to discuss a familiar topic. Thus, the interviewees in the group felt less pressure and were stimulated by each other. During the focus group interview, some

prompts suitable for children were used to help students focus on the focus group interview and put them at ease (Faith, 2012), for instance, “Write down the word we have learned to express your feeling when . . .” or “Show me your gestures for . . .”

In this research, the focus group was held at the end of each term. In each group, five to six students were recruited, depending on their willingness to be interviewed. During the focus group, semistructured questions were used to guide the interview, and the participants were given the freedom to talk. Former materials were also flashed to encourage their memory about the knowledge as well as the multimodal methods that had been employed at that time. Further, multimodal activities were inserted to help put students at ease, such as “Show me your gesture for number 6 in Chinese,” “Draw a picture of your family,” and “Label the family members in Chinese.” The questions were concerned with students’ memory of topics they had learned and the multimodal methods the researcher had used to deliver the knowledge (see Appendix 9). Students also had the chance to express their preference toward the different materials that were employed to teach Chinese.

### **3.4 Data analysis**

Data analysis was crucial to this research. Through data analysis, the collected data (lesson plans, observation records, reflective journals, questionnaires, and focus group interviews) became a distinct record of evidence and contributed to the conclusions (Runeson & Höst, 2009). The data analysis process consisted of six steps: familiarising with the data, generating initial codes, generating initial themes, refining themes, defining and naming themes, and producing the report (Braun & Clarke, 2008). The researcher followed these six steps to analyse the data, interpret the data under the guide of this study’s research question, and then make conclusions.

The first step was to become familiar with data. In this research, the data came from different resources, such as lesson plans, observation records, reflective journals, questionnaires, and focus group interviews. It was necessary to put data of different kinds together, read it, and note it. During this process, the researcher connected the data with the research questions and

tried to find key concepts or terms that provided similar types of information (Parsons & Brown, 2002).

The second step, coding, emerged as the researcher read the data. When the researcher read the lesson plans, observation records, reflective journals, and interview notes, the categories of narrative information began to appear. Key concepts and terms that reflected specific content began to repeat itself throughout the data (Mertler, 2009). These key concepts and terms could be identified through open coding, which was a fundamental analytic procedure to identify and develop concepts (Flick, 2009). For instance, both “Students remember the rainbow we drew together when learning colour” and “They come up with the Chinese word upon seeing the picture of teacher” were coded as “Students engage in visual materials.”

With the key concepts and terms coded, some themes appeared in the third step, such as “students’ engagement” and “teacher’s expression.” Themes were defined as what reflected the main features of the collected data, with full consideration of the research questions and study context (Braun & Clarke, 2008). It empowered the teacher researcher to briefly and systematically synthesise and illustrate the data (Braun & Clarke, 2008). However, these themes were raw and not systematically arranged; therefore, they could not be directly analysed.

The fourth step was to refine the themes that were closely related to the research questions. For example, one of the themes of this research was the multimodal approach and its contribution to students’ engagement, which included codes such as “Students engage in visual materials,” “Students don’t like to read after teacher,” and “Students like touch mode in games.”

In the fifth phase, the teacher researcher began to describe the main features or characteristics of the categories resulting from the coding of the data (Parsons & Brown, 2002). During this step, the categories needed to reflect and describe in terms of the different data’s connection or ability to understand the research topic and answer the research questions (Mertler, 2009).

The last step was about producing the report by interpreting the data that had been systematically organised and categorised. The teacher researcher’s work here was to examine the data concerning relationships, similarities, contradictions, and conclusions (Parsons &

Brown, 2002). In this research, the conclusion showed how the full use of the multimodal approach could help to engage students in learning Chinese as a foreign language.

### **3.5 Principles**

The study was carried out with the full consideration of validity and reliability, ethical issues, and generalisability.

#### **3.5.1 Validity and reliability**

Validity in qualitative studies is “a contingent construct, inescapably grounded in the processes and intentions of particular research methodologies and projects” (Golafshani, 2003, p. 602). Reliability was defined by Sheri (2012) as “a concern for researchers when accuracy and consistency of methods are important and is mostly associated with use of statistical procedures and quantitative methods” (p. 1). Although this research carried out qualitative research methods rather than quantitative, validity and reliability are still important considerations. To guarantee the validity and reliability of this study, efforts were made from three angles. First, the teacher researcher reviewed recent literature with firm authority to ensure the theory and knowledge was not outdated and to build a solid foundation for the study. Second, data was collected from different sources using different methods; that is, triangulation (Flick, 2009). In this study, lesson plans and reflective journals originated from the researcher’s design and reflection. This, on the one hand, was contributory to the data collection, as the teacher researcher regularly reflected on and corrected teaching to improve his professional position (Mills, 2011). On the other hand, data gathered in this way was embedded with personal emotions. Therefore, students’ opinions were also included through the focus group interviews. Meanwhile, detailed information was made as explicit as possible. Third, the teacher researcher frequently communicated with experts to gain instructions and advice, with data interpretation being discussed among ROSETE members. The aim was to help shun subjectivity and one-sidedness when the researcher interpreted the data.

### **3.5.2 Ethical consideration**

Research ethics refer to “how values and moral principles are integrated in the actions and reflections of research” (Stige, Malterud, & Midtgarden, 2009, p. 1511). As Northway (2003, cited in Flick, 2009, p. 40–41) stated, “All aspects of the research process, from deciding upon the topic through to identifying a sample, conducting the research and disseminating the findings, have ethical implications.” This means that during the research, the researcher should pay special attention to ethical aspects and follow ethical guidelines. There are five rules the teacher researcher should follow: (1) Make the participants aware of your research, (2) Be respectful of participants and maintain their confidentiality, (3) Obtain permission before using video or audio to collect data, (4) Reflect on the bias that may be brought to the research and be open to unanticipated results, and (5) Report findings fully and honestly (Joan, 2012).

In this research, the researcher paid attention to the ethical considerations. Before going to P public school, the researcher acquired access from WSU, the NSW Department of Education and Training, and the school principal. It was also necessary to inform all participants of the research the researcher was carrying out, and that they would all attend voluntarily, equally, and willingly. The researcher respected participants at all times and did not do harm to them. To protect the students, the researcher followed a strict procedure when using the camera and video, and did not use the real names of students and schools.

### **3.5.3 Generalisability**

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). It is associated with the degree to which findings would lead to another context and may be of interest across a wider arena (Sheri, 2012). Because of the usual small-scale settings of action research, as well as its goal of analysis to discover patterns, ideas, explanations, and understanding, action research thus does not aim at providing universally applied findings (Sheri, 2012). In action research, the goal is to understand what is happening in school or classroom and to determine what might improve things in that context. Therefore, there emerges limitation of generalisability in this research, which was a study carried out in one class under

the ROSETE program. However, to make it possible for other researchers or teachers to use this research or make comparisons, the researcher provided detailed information about the background, data, and methodology under the guideline of ethical consideration.

## **Chapter 4 Picture-based multimodal approach**

### **4.0 Introduction**

Chapter 4 to Chapter 6 consist of data analysis. Three themes driven by the data are presented: the picture-based multimodal approach, the gesture-based multimodal approach, and the touch-based multimodal approach. This chapter focuses on the analysis of data related to the picture-based multimodal approach employed in the teacher researcher's classes. This kind of multimodal approach included the visual–auditory method and the visual–oral method. This approach was implemented mainly through interaction between students and the material.

### **4.1 Visual–auditory method**

The visual–auditory method was one of the teaching methods adopted in the teacher researcher's class. It mainly consisted of pictures and spoken language provided by the teacher researcher. This method was designed to engage students in Chinese language classes, focusing on their listening practice.

#### **4.1.1 Visual–auditory method: Embedded scaffolding and repetition**

The teacher researcher designed an activity in his lesson plan, mainly using the visual–auditory method to teach colours (including the sounds, *pinyin*, and characters) in Chinese. Using the visual–auditory method, a typical activity “Listen and Catch the Word” was employed for students to practice their listening. The teacher researcher implemented the plan, observed the students' learning performance, and self-reflected on his teaching. Data is presented as follows:

After two lessons I kept speaking and asking students to copy characters and pinyin written on the whiteboard. I found they were reluctant to pick up the pen and began chatting with neighbours. This led to my consideration about how to integrate these two modes, visual mode and auditory mode, to engage them and help them learn Chinese in my class.

--- Self-Reflective Journal, Cycle 1, Week 1

Table 4.1. *Chinese Lesson Plan: Colours (1)*

Term: 3, Week: 3			
<b>Lesson outcomes:</b> 1.To learn colours in Chinese (black, white, golden, silver, and brown) 2. To understand yin and yang theory 3. To apply yin and yang theory in diet		<b>Lesson outline:</b> Review & do now – Chinese colours – yin and yang theory introduction – yin and yang application – tai chi quan – conclusion <b>Chinese concepts:</b> Colours, yin and yang	
<b>A. Engagement</b>			
<b>Review and do now:</b> 5’ Worksheet for review last lesson and check answer 3’ “Is this skirt golden-white or purple-blue?” (assisted with popular picture online)			
<b>B. Knowledge building</b>		<b>&amp; Transferring</b>	<b>&amp; Presentation</b>
<b>Evaluation</b>			
8’ Teacher writes Chinese colours (characters, <i>pinyin</i> and meanings) on board and provides pronunciation	Students copy characters, <i>pinyin</i> and meanings  <b>2’ Reading after teacher and flash card practice</b>	<b>8’ “Listen and catch the words” activity</b>  3’ Students pronounce Chinese words on PowerPoint slide one by one	According to student’s performance in activity
3’ “Yin and yang theory” reading material	5’ Students write answers to the questions about yin & yang theory on worksheet	2’ Invite students to show answers and check with all students	
3’ “Yin and yang food” video	8’ Discuss about yin and yang food and identify different kinds of food as yin or yang and students think about their own diet	5’ Invite students to talk about their food style (yin or yang or balanced) and what they need to eat more	
<b>C. Brief conclusion and culture experience time</b>			
2’ Read colours aloud couple of times 10’ “Tai chi quan” video and teacher’s performance 2’ Introduction of topic in next lesson			



Figure 4.1. PowerPoint slide: Colours.

--- Lesson Plan Segment, Cycle 1, Week 4

Steps of the activity “Listen and Catch the Word”:

1. Two students will be invited to the front and stand on the two sides of the screen, on which there are five Chinese words (visual mode).
2. The teacher will say one of the colours in Chinese and the students listen (auditory mode) and touch the corresponding word on the screen (Figure 4.1).
3. The first to get the word wins. The rest of the students will help record the marks.

--- Lesson Plan Segment, Cycle 1, Week 4

James and Hanson [pseudonyms] were invited to play. When they half stretched their arms and got ready, I uttered “bai se [white].” They both hesitated for around two seconds and then quickly reached their hands to the sign of “bai se.” James first got it and the rest of students gave one mark to him and recorded with their fingers. Hanson shook his head and quickly watched the screen carefully again, getting prepared to listen to my next instruction. Then I said “jin se [gold],” and this time neither of them touched the right one. I had to say it again, and these two boys began to guess, with James touching “zong se,” Hanson “yin se,” and they kept changing their minds and touching words randomly. At this point, I said, “No cheating” and told them the English meaning.

--- Observation, Cycle 1, Week 4

Data from the teacher researcher’s reflective journal shows students were not willing to keep copying Chinese characters and they started chatting. This indicates that students were bored and disengaged as the teacher researcher was teaching in a monotonous way. Since the monomodal teaching method showed little advantage in engaging students, the visual–auditory method was designed to engage students in class.

Data generated from the lesson plan (see Table 4.1) provides information about how the visual mode and auditory mode are integrated in the visual–auditory method. For students, the colourful Chinese words on screen were in the visual mode, and the teacher’s pronunciation of Chinese words belonged to the auditory mode. During the activity, students had to listen to the sound of colours in Chinese from the teacher, and at the same time watch the Chinese words on screen (see Figure 4.1). They had to make the connection between what they heard and what they saw. In this way, their visual sense and auditory sense were both stimulated.

The evidence from observation shows that before the students got the right answer, they hesitated for a moment. Hesitating is a signal of thinking, indicating that thinking happened in their minds after hearing the sound of a Chinese word. Then aiming at the right answer with their eyes, they got the right answer with their hands. From their quick movements, it can be seen that the students were engaged in learning Chinese or practicing their listening skills. One student also lost the first round and he shook his head; this possibly means that he valued this activity and longed to win. Calming himself down for the next round also shows perseverance. Students valued this visual–auditory activity and showed perseverance, which are two signals of the students’ engagement.

However, the data in observation revealed that problems occurred in this method when the students met a relatively difficult task. With no one getting the right answer, they began to guess, and this left the whole class stuck in the middle. The teacher researcher reflected:

Throughout my planning, teaching, and watching of my own Chinese class, I found a key issue: These students were not very familiar with the characters and the sounds, or have not been able to make a link between those colours and my articulation of those words. They ended up randomly guessing and pointing at the wrong answer. This might be because I did not make them practice these enough ahead of time. Another reason I could think of might be that it is hard for them to identify all pronunciations of these words. I should have provided them with *pinyin* for each word to assist them or remind them of the sound of these words. In the next round of planning while using this mode, I would definitely try to insert Chinese *pinyin* and reinforce their practice through repeated exercises.

--- Self-Reflective Journal, Cycle 1, Week 4

The teacher researcher tried to find out reasons the problems occurred during the implementation of this visual–auditory method in his self-reflective journal. It showed that there existed a lack of repetition and scaffolding in this visual–auditory mode of activity. In the language learning procedure, repetition is necessary. Students need time for knowledge transfer in context and for connection building between the visual part and the auditory part of Chinese. In the teacher researcher’s class, as shown in the lesson plan in Table 4.1, students were provided chances to read after the teacher, and the teacher did flash card practice to transfer knowledge. However, these are not enough to make sure students grasp and memorise the new knowledge. More modelling and repeating are still needed to reinforce their memory of the content taught in class.

Meanwhile, scaffolding is also essential for the beginning learner to learn Chinese, especially the connection between characters and sounds. Chinese characters are hieroglyphs and they cannot be pronounced according to their spelling as phonics-featured languages (such as English) are. Due to the different language systems of Chinese and English, beginning learners with only an English background cannot see the pronunciation through characters. Consequently, in this visual–auditory activity, even though the words on screen were “painted” with the corresponding colours, the barrier between characters and sounds was still difficult for students to leap. If this is the case, *pinyin*, as “an instructional technique used to move students progressively toward stronger understanding and, ultimately, greater independence in the learning process” (The Great Schools Partnership, 2015, n.d.), a bridge to link characters and sounds and to integrate the visual mode and auditory mode can be employed to scaffold learning. Thus, with the successive levels of temporary support provided by the teacher, students may reach higher levels of comprehension and skill acquisition, and specifically, the ability to connect characters with sounds, which they may not be able to do or may find it hard to achieve without the reference from *pinyin*.

With the lessons learned from the previous practice, in the following lesson, the teacher researcher applied the visual–auditory method “Listen and Catch the Word” through building in *pinyin* and providing more time ahead for students to memorise the content.

Table 4.2. *Chinese Lesson Plan: Family*

Term 3 Week 6	
<b>Lesson outcomes:</b> 1. To understand family structure in China 2. To learn family members (mum, dad, older sister, older brother, younger sister, younger brother, grandpa, and grandma) in Chinese 3. To know Chinese house style	<b>Lesson outline:</b> Review & do now – family size discussion – Chinese family introduction – family members learning – practice – Chinese house style experience <b>Chinese concepts:</b> Family members (family size) Chinese house style
<b>A. Engagement</b>	
<b>Review and do now:</b> 5’ Worksheet for review last lesson and check answer      8’ Draw a picture of your own family in worksheet	
<b>B. Knowledge building</b>	<b>&amp; Transferring</b> <b>&amp; Presentation</b> <b>&amp; Evaluation</b>
4’ Comparison between structures of Chinese family and Australian family	Students write the English family members in the picture they have drawn Teacher shows a picture of his own family and introduces to students 3’ Invite students to introduce their own family and see the difference between their family and the teacher’s Chinese family
5’ “One child policy” explanation Chinese family introduction video	
8’ Teacher writes Chinese family members (characters, <i>pinyin</i> , and meanings) on board and provides pronunciation	Students copy characters, <i>pinyin</i> , and meanings 5’ Reading after teacher, flash card practice, and pronounce family members in picture 7’ “Listen and catch the words” activity 8’ “Family members crunch” activity
10’ Invite students to read introduction about different house styles in PowerPoint slide	Share ideas during discussion
<b>C. Brief conclusion and culture experience time</b>	
2’ Read family members aloud couples of times 5’ Voice of China show video 2’ Introduction of topic in next lesson	

-- Lesson Plan Segment, Cycle 1, Week 6

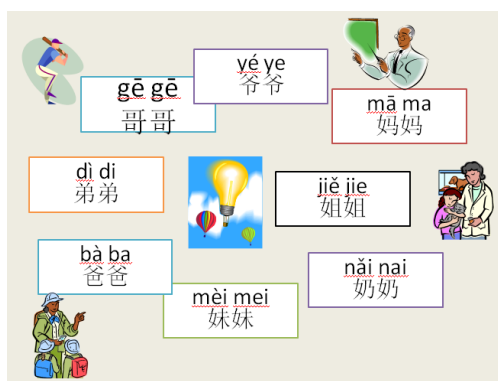


Figure 4.2. PowerPoint

slide: Family.

--- PowerPoint Slide, Cycle 1, Week 6

When I taught them family members with the visual–auditory method, “Listen and Catch the Word,” I wrote all the characters, *pinyin*, and meanings on the left side of the whiteboard (e.g., 爸爸 bàba Dad). I also put *pinyin* with character together on the screen (Figure 4.2) to offer reference for students.

--- Self-Reflective Journal (1), Cycle 1, Week 6

This time, Sari and Jacky [pseudonyms] were invited to participate. I noticed that when I pronounced some words they knew, they could catch the word on the whiteboard quickly. Sometimes they met some words unfamiliar to them; they would have a glimpse of the left side, refer to the scaffolding, and get the right answer. After the activity, they even longed for another go.

--- Observation, Cycle 1, Week 6

Students did not meet the problem as we did last time because they had something to refer to when they could not match sounds with characters. From this perspective, the *pinyin* was effective. However, students sometimes still had problems in remembering words. I was wondering whether the repetition was sufficient and whether there was anything else I could do to improve their memory and performance in learning. Moreover, although they could catch the words correctly, did they really grasp the knowledge?

--- Self-Reflective Journal (2), Cycle 1, Week 6

According to the lesson plan (see Table 4.2), the teacher researcher extended time in the knowledge transfer part and increased the time for modelling and repetition to reinforce the students’ memory. Data in the reflective journal (1) and PowerPoint slide (see Figure 4.2) from his lesson plan indicates the way the teacher researcher inserted *pinyin* as scaffolding in this visual–auditory activity. By putting characters and *pinyin* together to link the characters with

sounds, it was supposed to help students overcome the difficulty caused by Chinese characters' hieroglyphic feature.

Based on the observation data, the solutions—that is, adding time for modelling and providing *pinyin* on the side as scaffolding—proved positive. Students “longing for another go” might mean that they enjoyed and engaged in this visual–auditory activity. Their quick response to the familiar words and flexible approach to manage unfamiliar words showed a better performance during class. Within the teacher researcher's reflection, he realised the significance of *pinyin* as scaffolding; that is, *pinyin* does not only facilitate this visual–auditory method, but also bridges the gap between visual characters and auditory sounds. Different from English words, which are phonetic symbols, Chinese characters are embedded with semantic features. Therefore, it is impossible to know the pronunciation only from the shape of a Chinese character, and it is extremely hard for English speakers to remember the sounds by remembering the characters. Thus, *pinyin* worked as a mediator here, conveying the meaning generated from characters while presenting the pronunciation in a “letter” form, which is more similar to English words. Once the difficulties were reduced, engagement was improved by the scaffolding in a way that reduced the negative emotions and self-perceptions that students may experience when they get frustrated, intimidated, or discouraged when attempting this competitive activity without the assistance, direction, or understanding they need to complete it (The Great Schools Partnership, 2015). The teacher researcher also reflected on the modelling and repetition, but the learning outcome was not as optimistic as expected. Thus, two questions were identified: How much time should be used in repetitive learning that will lead to the most desirable learning result when learning specific Chinese words? Does *pinyin* as scaffolding literally help students' learning of Chinese or does it only provide clues for students in an activity but may not be helpful for memorising the words?

The employment of the visual–auditory method “Listen and Catch the Word” took place in Week 4 and Week 6 during Cycle 1. By comparing data from classes in these two weeks, it can be seen that the visual–auditory modal activity helped students' engagement and provided chances for them to practice their listening skills. However, this does not mean that other strategies should be ignored. Repetition is necessary in building students' memory and

transferring knowledge, but the result remains to be seen. *Pinyin* as scaffolding can be adopted to make improvements in the visual–auditory method. However, the teacher researcher has not identified the necessary connection between the learning (such as remembering sounds and recognising characters) and *pinyin* as scaffolding, which needs more study in the future.

#### 4.1.2 Visual–auditory method: Connecting with prior knowledge

During Cycle 2, the teacher researcher continued to adopt the visual–auditory method when reviewing facial appearances and designed another visual–auditory activity, “Listen and Guess Who.” This visual–auditory activity was planned to engage students and help them with their listening practice. The teacher researcher made the lesson plan, implemented the teaching, observed students’ reactions, and conducted self-reflection. Data is as follows.

Table 4.3. *Chinese Lesson Plan Segment: Facial Appearance*

Term 4, Week 3	
<b>Lesson outcomes:</b> 1. To describe a friend’s facial appearance with two sentence patterns “ta shi . . .” (He/she is . . .) and “ta you . . .” (He/she has . . .) 2. To describe a friend’s facial appearance with vocabulary of colours, organs, adjectives (e.g., big/small, long, short)	<b>Lesson outline:</b> Review of vocabulary – two sentence patterns learning – translate Chinese description into English version in worksheet – practice with the activity “Listen and Guess Who” – video about friendship

Steps of the activity “Listen and guess who”:

1) The teacher shows four pictures (Jessie J., Adele, Jackie Chen, and Lionel Messi) on the screen and states a sentence describing one of them, for example, “ta you jin se de changjuan fa, hei se de yanjing he xiaozui” [He/she has blonde straight curly hair, black eyes and small mouth].

2) The students are supposed to guess whom the teacher is describing and to respond by saying, “ta shi . . .” [He/she is . . .] in Chinese.

--- Lesson Plan Segment, Cycle 2, Week 4

In the previous lesson, I exchanged basic information with my students, such as name and hobbies. Why did I not combine the popular items around students with my Chinese teaching in class? It may be helpful in engaging them in learning.



Figure 4.3. PowerPoint slide: Facial appearance.

On seeing the pictures, a boy quickly raised his hand, saying, “I know them!” I said, “Then who are they?” He pointed to the figures in the pictures and said firmly, “Jessie J., Adele, Jackie Chen, and Lionel Messi, yeah! Y (^o^ ) Y.” When I started speaking Chinese to describe one of the figures, their eyes moved between me and the pictures, and one of them even stopped his neighbour from knocking the table, saying, “Listen!” Before I finished the first sentence, some of them started uttering the names “Jessie J.!” “No, it’s Adele!” “Don’t be silly, Adele’s hair is long!”

--- Observation, Cycle 2, Week 4

Before the activity, we had done lots of review and repetition, and this may ensure that students know the pronunciation and meaning of the vocabulary to be used in the description. Beyond my expectations, for each round at least half the students raised their hand to answer, and they matched all my descriptions with figures correctly. I think these pictures stimulated their interest, because they knew them and loved them. When they saw the familiar things in class where they learned a foreign language, they may think that something is already in their memory and feel they are part of the class.

--- Self-Reflective Journal, Cycle 2, Week 4

Data from the lesson plan segment (see Table 4.3) illustrates how the visual–auditory method for “Listen and Guess Who” works: Students should listen to the teacher researcher’s description and watch the pictures of celebrities (see Figure 4.3) to find out the right answer. It also reveals how the visual mode and auditory mode were integrated in this activity: Four pictures of celebrities on the screen stimulated students’ visual mode, and the teacher’s descriptions of these celebrities were in students’ auditory mode. As can be seen from the teacher researcher’s self-reflection before the lesson, the teacher researcher tried to embed in

the activity students' prior knowledge to engage students. Prior knowledge is rich in meaning, but here it mainly included learners' personal and idiosyncratic experiences, a generic set of experiences attributable to the developmental stages through which learners may have passed, and the kind of knowledge that learners acquire because of their social roles (i.e., race, class, gender, culture) (Bransford et al., 2000, p. 71).

Data from observation shows that before the visual–auditory activity started, students scrambled to say their names confidently. This may attribute to the function of the familiar pictures in arousing students' interest and encouraging them to contribute to class. A student said “Yeah!” and “made a victory gesture,” indicating that finding the right answers according to their prior knowledge made them happy. During the activity, most students “moved eyes between the teacher researcher and the pictures.” This reveals that they were concentrating in the process of listening to the instruction and matching it with the picture. One student also intended to stop his neighbour from making noise by knocking the table and saying, “Listen!” which may mean that he was trying to help manage behaviour in class so as to gain a better learning environment. Debate also ensued among students about the right answers. This was peer interaction, indicating the commitment to the activity and even to the learning.

The self-reflective journal shows that the teacher researcher intended to add time for repetition before the visual–auditory activity to ensure the activity went smoothly. He also found that students were interested in this visual–auditory activity, and their listening skills seemed improved. Then the teacher researcher tried to analyse the reasons why students enjoyed the activity from the perspective of students' prior knowledge. Prior knowledge is interdependent with the idea of learning with understanding in the learning process (Bransford et al., 2000, p. 9). At the same time, it is closely connected with affiliation. Affiliation is a kind of engagement, encompassing the idea of a person engaging with a group or community and seeing themselves as being part of that community in a meaningful way (Whitton & Moseley, 2014, p. 11). It may involve identification with the group, interaction with peers, and a feeling of belonging to a social structure. Since Chinese language was a new and foreign language to the students, it may have led to their feeling of distance and disconnection in the Chinese class. Thus, the proper connection of students' prior knowledge with the Chinese class seems essential

in engaging students' learning. During this visual–auditory activity, the teacher researcher took advantage of prior knowledge from two aspects: (1) to provide sufficient time for students to remember the content and establish the foundation for the activity and (2) to attract students' attention by the popular things in daily life they already know. In this way, through the visual–auditory activity, prior knowledge was inserted in the class to engage students to learn a foreign language.

This visual–auditory method, “Listen and Guess Who,” was adopted in Cycle 2, Week 4 and shows optimistic results in engaging students. The teacher researcher learned lessons from Cycle 1 and intended to provide more repetition for the students to remember. Through the analysis, the teacher researcher highlighted the effect of prior knowledge in facilitating students' learning and promoting students' engagement. From this point, it can be concluded that taking advantage of students' prior knowledge during the multimodal approach can be effective. Moreover, the visual–auditory method seemed to improve students' listening skills, but further evidence is needed.

## **4.2 Visual–oral method**

The visual–oral method refers to a teaching method that the teacher researcher employed in his class to engage students' learning. This kind of method contained pictures and required students to pronounce or speak to engage students and develop their skills in spoken Chinese.

### **4.2.1 Visual–oral method: Feast of colours**

The visual–oral method was one of the picture-based multimodal approaches in the teacher researcher's class. This method was employed when teaching “colours.” The teacher researcher designed the visual–oral activity, “Tell Me the Colour of . . .” and inserted it into the lesson plan. He then collected data from the participant observation, self-reflective journal, and students' focus group interviews.

Students receive a worksheet with a colourful picture of a Mickey Mouse theme (Figure 4.4), and this picture is presented on screen.

1. The students are required to write down the colours they already know (black, white, silver, gold, and brown).
2. The teacher teaches new Chinese words based on the colours in the picture shown on screen (red, green, yellow, blue, pink, and purple).
3. Students are expected to copy both characters and *pinyin* on the line, respectively, and
4. Learn how to pronounce the new words with the teacher.
5. “Tell Me the Colour of . . .” practice: For example, the teacher asks, “What’s the colour of Mickey’s hand?” The students answer in Chinese together “bai se” [white].



Figure 4.4. PowerPoint slide: Colourful Mickey.

--- Lesson Plan Segment, Cycle 1, Week 5

When she had received the worksheet, a girl shouted, “That’s beautiful! I love Mickey Mouse!” When I taught them the Chinese words for the colours, they all followed me and even “drew” the characters stroke by stroke. A boy said, “We have Z, J, and 7 in green!” After writing the *pinyin* and characters, some students began trying to pronounce them themselves. Then I pointed to different parts (colours) in the picture and pronounced the words. Most students repeated after me aloud. Several times later I asked them, “What’s the colour of Mickey’s hand?” Two students immediately answered “bai se” [white] and the rest of the students followed these two and said, “bai se.” At this moment, a boy raised his hand and said “bai se” sounds like “bye sir.” I said, “Exactly, it is a great discovery! You can also remember ‘hei se’ as ‘hey sir’ according to your theory, that’s pretty good!” He nodded his head and smiled for long time. Then I asked, “What’s the colour of Donald’s hat?” This time most students looked at me and pronounced “lan se” [blue] correctly.

--- Observation, Cycle 1, Week 5

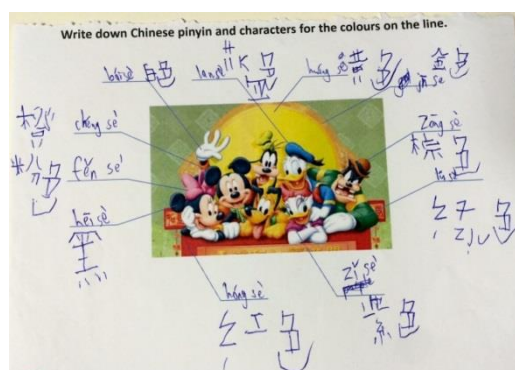


Figure 4.5. Students' work: Colourful Mickey.

--- Student Worksheet, Cycle 1, Week 5

Students seemed to like this visual–oral activity, “Tell Me the Colour of . . .” especially the colourful picture. They enjoyed learning in Chinese and could even try the characters, which were really challenging. When they pronounced, it was so loud that I could tell they were immersed in their learning. The *pinyin* and characters they wrote also scaffolded their pronunciation. The repetition also helped them remember new words. I think the picture triggered their interest and the feast of colours had visual impact, especially to teenagers, which helped stimulate their interest. When I combined some colour stuff with what I am going to teach in Chinese, they seemed more likely to engage and learn better.

--- Self-Reflective Journal, Cycle 1, Week 5

Data generated from the lesson plan illustrates how the visual mode and oral mode were integrated in this visual–oral method. The colourful picture (see Figure 4.4) with elements familiar to students was in the visual mode; the students pronouncing colours in Chinese in response to the teacher’s questions belonged to the oral mode. Students found the colours in the picture and pronounced them in Chinese. In this way, they were stimulated with both the visual mode and oral mode.

The evidence from observation shows that the colourful picture immediately drew students’ attention, as one student shouted, “That’s beautiful! I love Mickey Mouse!” and their enthusiasm lasted during the learning of new words, which can be seen from their drawing the characters stroke by stroke (see Figure 4.5). The comment, “We have Z, J, and 7 in green!” indicates that students observed the characters carefully and compared Chinese characters with English words they already knew. This is a sign of knowledge transfer. After writing the *pinyin*

and characters, some students began trying to pronounce them. This is self-driven learning, which may mean they were deeply engaged in class. As I taught them the pronunciation, they together repeated after me aloud. The loud and neat voice shows their willingness to contribute to class. Several times later, the teacher researcher started the visual–oral activity and asked them, “What’s the colour of Mickey’s hand?” Two students immediately answered, “bai se” [white]. This happened so spontaneously that the Chinese words flowed from their minds and were pronounced with no hesitation. This was great progress compared to their undetermined voice caused by fear of making mistakes during the beginning lessons. The rest of the students followed these two and said the answer with the correct pronunciation. It seemed that students also learned from their peers, and could follow the examples. At this moment, a climate of learning had been established, and almost the whole class was engaged in learning. Meanwhile, a student connected “bai se” with “bye sir,” which sound similar to each other. The teacher researcher then extended this theory to “hei se” and “hey sir,” which was quickly accepted and adopted by the class. This showed that the students not only learned Chinese but also contributed to knowledge building, providing a new method for peers to remember Chinese words. The contribution to class brought great satisfaction to the student as he “nodded head and smiled for a long time.” Then other questions were asked, and the students looked at me, giving the right answer with the correct pronunciation. The positive effect in engaging students’ learning with this visual–oral method can be seen here.

In the self-reflective journal, the teacher researcher evaluated this visual–oral method and tried to find reasons for the positive effect of this method. Two aspects can be noted. The first is the preparation done before the activity, such as repetition of pronunciation and scaffolding as students wrote on their worksheets. The teacher researcher learned lessons from previous teaching experience about the necessity of scaffolding and repetition, then made revisions in the next lesson, which turned out to be effective. The second reason may be the colourful picture, which made a visual impact on the students. The feast of bright colours seemed appealing to the teenage students and helped them to enhance their performance in practice. Colour is considered the most significant visual experience to human beings. It provides a massive amount of information to the human cognitive system, and it has been found to contribute to

memory performance (Dzulkifli & Mustafar, 2013). Colour can function as a facilitator for students' learning by motivating their attention and raising their emotional arousal. Farley and Grant (1976) carried out experiments on the impact of colour on attention and found that presentations with coloured multimedia led to better attention and memory performance than monotone. They also noticed that colours gave rise to emotional arousal, which promotes student engagement. Among the different colours, bright colours seem to be more effective in engaging students in class. The colours in this picture (Figure 4.4) are mostly bright (yellow, green, white, red), which contributed to stimulating students' visual experience and raising their level of attention. This is in accordance with the findings of Greene et al. (1983), that warm colours such as yellow, red, and orange have a greater effect on attention compared to cool colours like brown and grey. Moreover, the combination of colours in the picture during the visual–oral method showed strong contrast, which also contributed to students' performance during the practice. A higher level of contrast may refer to the luminance (brightness of the colour) and the colour hue (the wavelength of the colour). It is believed that this kind of contrast will draw more attention and better visibility of an object or information (Dzulkifli & Mustafar, 2013). The green and yellow background formed a high level of contrast with colourful figures at the front, and this enforced the impact on stimulation of the students' attention.

The visual–oral method, “Tell Me the Colour of . . .” was employed in Cycle 1, Week 5, which was considered to be effective in engaging students to practice speaking Chinese. The combination of bright and contrast colours gave rise to the students' emotional arousal and motivated their attention. However, there remain other reasons why students were interested in this visual–oral method, which requires further study.

#### **4.2.2 Visual–oral method: Collaboration in small group practice**

The visual–oral method was also adopted to teach the students about animals and facial expressions. The visual–oral activity that the teacher researcher designed was called, “Say It as I Point Out.” The teacher researcher implemented this method during the lesson and collected data.

Students were shown a picture of the Chinese zodiac, and they were required to say the name of a specific animal according to the teacher's instruction. (The teacher pointed at one of the animals with his finger.)

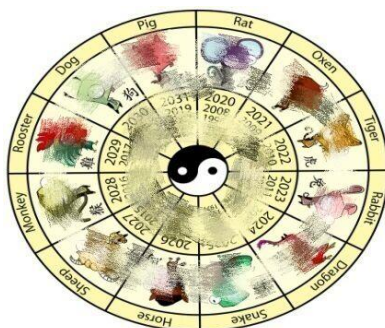


Figure 4.6. PowerPoint slide: Chinese zodiac.

--- Lesson Plan Segment, Cycle 1, Week 8

On seeing these pictures, some students said, “Oh my god, they are really cute!” “I want a piggy!” “Oh my zodiac is awesome!” As the teacher pointed at one of the animals and asked the students one by one to say the Chinese of the animals, most students pronounced the words correctly and aloud. However, around five students shook their heads and looked at me saying nothing. One student even blushed.

--- Observation, Cycle 1, Week 8

Students seemed to be interested in this activity, and asking students to practice one by one provided the chance for everyone to practice, which can help the teacher find the mistakes of individual students. However, this one-by-one practice can be stressful for those who do not learn very well. Although they were interested in the cute animals and the teacher would help at any time, it seemed hard to avoid being awkward when they did not know how to pronounce.

--- Self-Reflective Journal, Cycle 1, Week 8

Maybe I could reduce this kind of one-by-one practice in class and find a method by which stress can be shared and everyone can get the chance to practice. In this visual–oral modal method, it may be better to let students pronounce the Chinese in a small group; thus, those who find it hard to speak could listen to group members and learn from them.

--- Self-Reflective Journal, Cycle 1, Week 8

Data from the lesson plan segment provides a way for the visual mode and oral mode to be integrated in the “Say It as I Point Out” activity. The picture on the screen (see Figure 4.6) with

colourful signs and animals stimulated the students in the form of visual mode, with their own pronunciation of Chinese words belonging to the oral mode. In this way, the visual mode and oral mode were integrated to engage students in speaking practice.

Through the teacher researcher's class observation, the students showed interest in this method, especially the picture, as some yelled "Oh my god, they are really cute!" and "I want a piggy!" The visual part seemed effective in arousing students' attention and interest in learning. However, when it came to the oral mode, not all students felt comfortable with the one-by-one speaking practice. Although most students met the teacher researcher's expectations, flaws can be seen in the statement, "Some students shook their head and looked at me saying nothing. One student even blushed." Students refused to answer and even felt awkward when being asked the question.

In the teacher researcher's self-reflective journal, he evaluated the implementation of this visual-oral method and tried to find reasons why this method discomforted some students. The teacher researcher believed that during this visual-oral method, one-by-one practice provided chances for both teacher and students to find the individual mistakes in learning, which could then be corrected with the teacher's help. However, in reality, adolescence is typically a time of increased self-consciousness and sensitivity (Elkind, 1967; Harter, 1990), and when students are in an uncomfortable situation, they pay less attention to learning or even try to get out of class. When students are anxious or worried about making mistakes they are less likely to engage in their academic work in an effortful and strategic manner (Turner, Thorpe, & Meyer, 1998). In this visual-oral method, discomfort emerged when students were forced to pronounce Chinese. Even though the visual stimulation showed the opposite effect in engaging students, the stress caused by one-by-one oral practice seemed overwhelming to some students. To help students' learning, improvement should be made to this visual-oral method. As the self-reflective journal shows, the teacher researcher tried to change the oral part by replacing the one-by-one practice with small group practice.

During Cycle 2, the teacher researcher employed the visual-oral modal activity, "Say It as I Point Out" again for students to practice facial appearance. He implemented the visual-oral activity in class and collected data from the lesson plan as well as his self-reflective journal.

The teacher points to one organ of Tom or Jerry in the picture and students in the small group are asked to say the organ in Chinese.



Figure 4.7. PowerPoint slide: Facial appearance “Tom and Jerry.”

--- Lesson Plan Segment, Cycle 2, Week 2

In Cycle 1, I noticed that answering questions individually could be overwhelming to some of my students. Therefore, I did not ask students to say the organ I pointed at one by one. Rather, I divided all my students (around 15) into five small groups, then they could say the organ as I pointed together. I pointed to different organs for different groups and they pronounced the words aloud and correct. As I speeded up, they became more excited and pronounced even louder. I noticed that those who did not learn Chinese very well were enjoying the activity as well. Although their voice was small or did not pronounce at all, they did not seem worried or anxious during the activity.

--- Self-Reflective Journal, Cycle 2, Week 2

Data from the lesson plan briefly illustrates how the visual–oral method “Say It as I Point Out” worked when teaching facial appearance. Similar to how the visual mode and oral mode are combined in teaching “Chinese zodiac,” the picture on the screen (see Figure 4.7) stimulated students in the form of the visual mode while their own pronunciation of Chinese words belonged to the oral mode. The difference here from Cycle 1 is that the teacher researcher removed the one-by-one practice part and added small group practice based on the experience from Cycle 1. According to the data from the teacher researcher’s self-reflection, students “pronounced the words aloud and correct” and even “got more excited and pronounced louder when the teacher speeded up.” This shows that students were engaged in the speaking practice. Data also shows that the students who felt uncomfortable during the implementation of this visual–oral method were not overwhelmed this time. Students should feel more efficacious in their ability to learn and complete activities successfully when interaction among students is

promoted, because they have a greater array of resources from which to draw than if they were working individually (Lage et al., 2000). In a small group, stress can be shared, and those who do not learn well can learn from peers. In this way, a comfortable learning environment can be formed, which can promote students' engagement.

This visual–oral method, “Say It as I Point Out,” was employed in Cycle 1, Week 5; Cycle 1, Week 8; and Cycle 2, Week 2. It helped to engage students in learning Chinese, especially spoken Chinese. The teacher researcher found that colourful items as visual stimulation worked with the adolescence students in Year 7 and Year 8, so that they were more willing to do speaking practice during the multimodal activity. However, stimulation from feast of colours alone did not seem enough; students also needed to feel comfortable when they were learning or doing practice. Based on this finding, the stressful one-by-one practice was replaced by the relatively relaxing small group practice in the Cycle 2 teaching. This proved to be an effective way for students to experience less anxiety and engage in the speaking practice.

#### **4.3. Discussion**

The picture-based multimodal approach combines the visual mode (pictures) and other modes, such as the oral mode and the auditory mode. It helps to engage students in learning Chinese by focusing on their listening and speaking skills. Analysis of data collected from employment of the picture-based multimodal approach reveals two main findings. The first is that pictures are efficient in arousing students' interest, because pictures act as a visual stimulator and a reminder of their prior knowledge during their learning. Specifically, pictures as something they can “read” reduced students' “foreignness” to the Chinese language in class. This helped them to establish a sense of belonging and connection between Chinese and real life. Pictures also played the role of visual facilitator, which stimulated the students to establish a connection between colours, visual images, and the Chinese words. This prolonged their concentration on learning in the Chinese class.

The second finding is that although pictures show optimistic results in engaging students, some teaching scaffolds such as repetition, *pinyin*, and group practice are still essential during the implementation of the picture-based multimodal approach. When the students' interest was

aroused by the pictures, they engaged in learning through these multimodal methods. Sufficient repetition guaranteed the reinforcement of the students' memorisation of the words or pronunciations. *Pinyin* as a "visualised scaffold" reduced the difficulty for students to pronounce Chinese words. Group practice instead of individual performance avoided students being in uncomfortable situations and provided the chance for them to learn from each other. These scaffoldings improved students' performance in Chinese learning and helped to retain their willingness to continuous learning.

The researcher has reviewed several other researchers' studies, some of which had similar findings. Bonham (2013) conducted action research about engagement through pictures for adult immigrant language learners in Canada. She organised a series of multimodal activities, such as poster designing and identity text writing, and then studied what perspectives students and teachers would have had toward these multimodal approaches and their learning. The results showed that multimodal approaches helped students' meaning making in learning and prolonged their learning interest in the development of language. She pointed out that multimodal approaches worked through several aspects, which included making use of visual stimulation and accessing prior knowledge to learning. Her multimodal learning tasks were designed to encourage students to make meaning by taking advantage of their semiotic resources in class and out of class. In their multimodal learning tasks, which were usually presented in the form of pictures of posters, their prior knowledge, such as the education system of home countries and life experiences, were used to connect the students' learning. In this way, through visual materials the teacher built relatedness between the language class and the students and made students feel belonging as a language learner rather than an alien to a new language.

With regard to the implementation of picture-based multimodal approaches, Peeck (1993) studied how to increase the effectiveness of pictures in learning from an illustrated text. The focuses of his study were the criterial tasks, the nature of learning materials, the characteristics of the learner, and the learning activities. It was pointed out that "improvement in picture effect may come from increasing students' visual literacy, and from designing tasks and assignments that require picture-processing and, preferably, render an external and controllable product"

(Peeck, 1993, p. 227). He suggested that the learners should be willing to follow the directions in a multimodal approach, and the way of achieving this was to require learners to come up with an external and controllable product in response to the picture-oriented instructions. Here, the picture-oriented instructions were scaffolds in this particular situation to increase students' engagement in learning. Scaffoldings can be presented in various forms in the implementation of different multimodal approaches. This required teachers to study their own teaching and develop unique scaffoldings toward each multimodal approach or other teaching approaches. However, more studies are needed to find out the effective scaffoldings in multimodal approaches during TCFL classes.

#### **4.4 Conclusion**

This chapter focused on analysing the data collected from the teacher researcher's reflections on his teaching using picture-based multimodal approaches and observations of the students' responses to these approaches. The evidence reveals that picture-based multimodal approaches employed in Chinese classes enables positive engagement with students in terms of their speaking and listening. Data analysis also indicates that the implementation of picture-based multimodal approaches receives better results through other scaffolding strategies. The next chapter focuses on gesture-based multimodal approaches.

## Chapter 5 Gesture-based multimodal approach

### 5.0 Introduction

Chapter 5 focuses on the analysis of data collected through teaching using gesture-based multimodal approaches in the teacher researcher's classes. Specifically, gesture–oral approaches and gesture–auditory approaches were tested and analysed. These approaches were implemented mainly through interaction between the students and teacher. Gestures in this research included both the teacher's gestures and the students' gestures.

### 5.1 Gesture–oral method

The gesture–oral method is defined as a teaching method that combines gestures (both the teacher's and students') with students' oral language in the teacher researcher's class. Students were required to show gestures while they pronounced Chinese words.

#### 5.1.1 Gesture–oral methods: Stimulating students with body movement

The gesture–oral method was employed during Cycle 1, Week 2. The teacher researcher designed the gesture–oral method “Finger Dance We Pronounce” to engage students in learning Chinese tones. The teacher researcher made a lesson plan, implemented it in class, and collected data from his lesson plan, participant observation, and self-reflective journal.

“Finger Dance We Pronounce” mainly consists of gestures and oral mode. The way is as follows: The teacher writes the *pinyin* first, and after students have tried pronunciation, he will give the standard pronunciation and pay attention to the tone. Then the teacher will add finger gestures when he pronounces: a horizontal move for the first tone (→), a rising move from left to right for the second tone (↗), a fall-rise move for the third tone (↘↗), and a falling move from left to right for the fourth tone (↘). The students are supposed to follow both teacher's “finger dance” and pronunciation together.

--- Lesson Plan, Cycle 1, Week 2

When I carried out this activity, most of my students spontaneously put elbows on their desks and started the “finger dance.” Two boys even waved the whole arm and swayed the top half of the body. As their fingers “danced,” the students pronounced the Chinese

word aloud and their tone would follow the movement of the fingers, which amazingly led to pronunciation that is more accurate. Three girls did not “dance” their fingers. Two sat still, pronouncing the word while the last one lowered the head and an awkward smile appeared on her slightly flushed face. Her eyes swivelled from her mate to me and when our eyes met, she would bow her head again.

--- Observation, Cycle 1, Week 2

During the first two classes, I noticed that “read after me” and “repeat after me” are the most frequently used instructions in my class. They are simple and direct orders and indeed, are necessary to give students the chance to practice pronunciation. However, students’ passion in learning may fade as this kind of training is repeated. The reason is twofold: The students are teenagers who easily get bored with endless monomodal mechanical motions, and they are besieged with the various tones of Chinese language, which do not even exist in English. So here, I took advantage of this gesture–oral method to engage the students. With the movement of fingers, most of them felt it interesting, and their tone would follow their finger movement so that better pronunciation could be made. This reminded me of a Chinese idiom “牵一发而动全身” (qian yi fa er dong quan shen) which literally means, “Pull one hair and you move the whole body.” This indicates a concept that what happens to a small part may affect the whole, or in other words, a slight move in one part may affect the whole situation.

--- Self-Reflective Journal, Cycle 1, Week 2

Data from the lesson plan illustrates how gesture and the oral mode were integrated to engage students in learning to pronounce Chinese words. Students were required to draw the sign of the Chinese tones while pronouncing the words. Drawing the sign in the air was gesture and their pronunciation was oral mode. Therefore, in this gesture–oral method, both modes were used to engage students.

The evidence from observation shows that most students liked this activity, as “most of my students spontaneously put elbows on their desks and started the ‘finger dance’.” This is engagement at the attention level. Exaggeration of the movement happened, which can be seen from “two boys even waved the whole arm and swayed the top half of the body.” This belongs to emotional engagement, since they not only followed the instruction, but also enjoyed the action and felt passionate for it. Their loud and clear voices indicate that the movement of fingers promoted their spirits for learning and pronouncing the words, during which they distinguished different tones and grasped the trick to pronounce them. In this case, students were engaged at the incorporation level.

In the self-reflective journal, the teacher researcher tried to analyse the reasons why this gesture–oral method was appealing to most of the students. Two perspectives have been considered from teenage students’ characters. Teenage students in high school are active and apt to be attracted by dynamic activity rather than static repetition, so body movement is more likely to attract students’ attention. Body movement in this gesture–oral method also meets the teenage students’ rising need of autonomy (Goodenow, 1993). During the gesture–oral method, students were given space to act according to their own wishes; they could control their own movement, which helped form a feeling of self-regulation (Goodenow, 1993). Thus, engagement can be promoted. The gesture–oral method can also be backed by the theory of total physical response (TPR). TPR requires the teacher to encourage students to listen and respond to the spoken target language commands of their teachers. In other words, TPR attempts to teach language through physical (motor) activity (Asher, 1969). The gesture–oral method and TPR method are both related to the combination of physical action and target language. However, different from TPR, which focuses on teaching the meaning of language through physical response to targeted language, the gesture–oral method was designed to engage students in learning pronunciation by physical response to students’ own gestures.

The gesture–oral method “Finger Dance We Pronounce” was employed during Cycle 1, Week 2. Evidence in the data shows that the combination of gesture and oral modes in this way was helpful in promoting students’ engagement as well as in grasping the exact pronunciation. The gesture–oral method met students’ need of autonomy and triggered students’ interest by body movement.

### **5.1.2 Gesture–oral method: Know your students**

The gesture–oral method “Finger Dance We Pronounce” turned out to be effective for most students in helping improve tone. However, not all students reacted well to the gesture–oral modal method. The following data was recorded by the teacher researcher.

I noticed that three girls did not “dance” their fingers. Two sat still, pronouncing the word, while the last one lowered the head and an awkward smile appeared on her slightly

flushed face. Her eyes swivelled from her mate to me, and when our eyes met, she would bow her head again.

--- Observation, Cycle 1, Week 2

T: I've taught you the four tones in Chinese pronunciation and asked you to follow my finger dance when we pronounce; do you still remember that?

A: What's that, sir?

B: Probably not . . .

C: Have we ever done that before?

T: You remember māmá mǎmà? [Showing gesture with finger —^v^]

C: I think I know this.

B: Oh! I remember. They are the little signs on top of letters.

D: Yeah, different tones different meanings.

T: Now you remember? Did you like or dislike when I asked you to move your fingers with me? Can you tell me why?

A: It's okay, easy.

B: I like it, sir! It was fun.

D: I like it because it helped us pronounce better.

C: I don't like it because it's boring, and you can't make that kind of sound clearly.

--- Focus Group Interview, Cycle 1, Week 10

There are some general differences between girls and boys. Girls may tend to be quiet, shy, and less active in physical movement. On the other hand, they are more mature than boys of the same age, so they think this kind of activity too childish. The other reason may lay on their fear to make mistake, because their gestures can be seen by the teacher and other students.

--- Self-Reflective Journal, Cycle 1, Week 2

Different from the boys, who even moved their whole bodies, girls gave a negative response. The first two refused to “dance” fingers but still pronounced the words; this kind of reaction can be categorised into participant engagement, which is a superficial level of engagement. They did part of the work and did not pay much attention to the activity. The last girl was stuck in an awkward situation; she was afraid of communicating with the teacher and did nothing but sit quietly. This shows that she was not engaged in the gesture–oral method.

During the focus group interview, which took place at the end of Cycle 1, the teacher researcher collected some students' opinions toward the gesture–oral method. Though most students gave positive remarks, one student pointed out, “I don't like it because it's boring, and

you can't make that kind of sound clearly.” This student was one of the girls who had refused to show gestures. From these words, it can be seen that the activity was boring and difficult for some girls.

In the self-reflective journal, the teacher researcher tried to find out why some students considered this gesture–oral method boring and difficult. The reason can be explored from three aspects. The first is the introverted nature of girls. Girls are generally quieter compared with boys; for them, body movement requires more effort. Some girls are afraid of making mistakes or putting themselves in an awkward situation. Those who do not get used to this method could feel embarrassed and things could get worse when students think they are performing (Widodo, 2005). Therefore, some girls may choose not to follow the instruction to spare themselves a hard time. The second reason is that girls tend to be less efficient when they feel uncomfortable. As Madison (1995, p. 158) reported, “The literature is consistent; women are more comfortable working in collaborative environments than competitive environments, and they are more successful and more persistent when they are comfortable.” If the gesture–oral method makes them feel uncomfortable, girls may be less efficient in learning. The third reason may fall on maturity, although they are still in adolescence. Pronouncing the word is already a challenge to their instinct, and body movement makes it worse for those who consider this action as a “stupid,” childish stunt.

How can I improve this method to involve as many students as I can? Maybe I can provide more choice for students when we do something. For example, they can choose to move their finger to draw the signs of tones or they can make it with arm, head, leg, or even the whole body. For those who do not like to show out, they can draw with their finger on the desk or with their pencil. As long as part of their body moves, it will help their pronunciation of tones. The other way to make them feel more comfortable is to build positive teacher–student relationships with them. If they think I will be always be nice to them and will not laugh at their mistakes, they will feel safe and easy in class.

--- Self-Reflective Journal, Cycle 1, Week 2

The teacher researcher in his self-reflective journal considered ways to improve engagement of those less active students. To engage students when the gesture–oral modal methods are applied, two strategies can be taken into consideration. First, positive teacher–student relations are

needed, and encouragement can help improve students' engagement. Students long for connection with teachers and wish for their teachers to know them as people. They also want teachers to understand the way they learn; they expect the teacher to be clear about what students understand and what they misunderstand. What is more, students want to have such a learning environment where interdependent relationships can be built and a culture of learning can be promoted (Taylor & Parsons, 2011). If students are sure that their relationship with the teacher is interdependent, and the teacher shows respect, care, and trust toward them, they will be apt to engage in class emotionally. When they consider that the teacher knows who they are, what their character is, what they can achieve, what they are afraid to do, and there is no punishment or bad influence even if they make mistakes in learning, they will be more likely to accept the challenge. Second, students may feel less nervous if they are provided choices during the gesture–oral activity. Providing choices helps engage students by giving them genuine control over how they organise their learning, which builds their responsibility in class (Claxton, 2007). The point of the choice is that, if specific students want to avoid their mistakes from being exposed to the teacher or just feel uncomfortable with the body movement, they can do it in another way. If students are willing to exaggerate the movement, they can do this if they wish. Through this way, students' desire for autonomy and their increased self-consciousness and sensitivity during adolescence (Nicholls, Cobb, Wood, Yackel, & Patashnick, 1990) can be addressed. Thus, engagement can possibly be promoted.

Although the gesture–oral method adopted during Cycle 1, Week 2 proved to be helpful in engaging most students, more improvement can be made to engage more students, such as building rapport with students and providing choices in class activities.

## **5.2 Gesture–auditory method**

The gesture–auditory method was one of the teaching methods embedded in the teacher researcher's class. It approached the teacher researcher's spoken language and students' gestures. Students made different gestures according to the teacher researcher's Chinese instructions. This method engaged students in practicing their listening skills.

### 5.2.1 Gesture–auditory method: Optimising mode combination

The gesture–auditory method was used when teaching Chinese numbers. The teacher researcher prepared the gesture–auditory activity “Listen and Show Me Gestures” to engage students in listening practice. He made the lesson plan, carried out the teaching, and collected data from observation and his self-reflective journal.

The teacher organised students to participate in the activity, “Listen and Show Me Gestures.”

#### Show me the number with fingers

- 1, Two in pair, work together to show me number (from 11-99)
- 2, The one on the right show tens digit  
the one on the left show single digit
- 3, Use Chinese gestures for number



Figure 5.1. PowerPoint slide: “Show Number With Fingers.”

--- Lesson Plan, Cycle 1, Week 3

After explaining the rules, some students put their arms on the table and some still sat looking around. When I said “er shi wu” [25], one boy asked, “How to show 20, sir?” Only two pairs of students showed me the right answer; others murmured to each other “What should I do?” “Are you the single digit?” Then some students started doing their own things.

--- Observation, Cycle 1, Week 3

When we learned numbers 1 to 10 in Cycle 1, Week 2, students were curious about the Chinese gestures for numbers. They imagined that the gesture for eight is a gun and the gesture for six is like a horn. In that lesson, I also used a gesture–oral activity “Finger Dance We Pronounce” to assist students’ learning. It showed a positive effort in both student engagement and language skill acquirement. Most of the students were fond of dynamic practice such as moving hands and role-play. Therefore, I tried to combine gesture with auditory modes to engage the students in developing listening skills for

numbers 11 to 100. Therefore, I designed a gesture–auditory modal activity. However, the activity did not go smoothly during class because students struggled with the 10-digit and the single digit. I had to explain the rule over again and told them “For 25, just show me 2 and 5 in Chinese gesture. The one seated on the right shows 2 and the one on the left shows 5.” This gesture–oral modal activity may have been too complex. It required students to cooperate, to show me gestures, to understand what I said, and even to make clear which one is the 10 digit and which is the single, just for practice of listening to numbers from 11 to 100. The multimodal approach should be simple to understand and implement. It should be effective rather than misleading. As it goes in the Chinese concept of “本末倒置” which means, “Put the cart before the horse,” I put too much emphasis on the form of activity but neglected the core aim—to practice listening skills.

--- Self-Reflective Journal, Cycle 1, Week 3


Data from the lesson plan shows how gesture and the auditory mode were integrated in this method. Students listened to the teacher’s instruction and used their hands to show the right answer. The teacher’s instruction was auditory mode while students showing their fingers was categorised as gesture. In this way, the auditory mode and gesture were combined in this activity.

The evidence from observation reveals that students were confused about the instructions as they “still sat looking around.” Students also did not understand how to cooperate with their partner, which can be seen from “How to show 20, sir?” “What should I do?” and “Are you the single digit?” Their reactions indicate that they could not get the point of this activity, so they could not start on it. Thus, disengagement was triggered as “They started doing their own things.”

In the teacher researcher’s self-reflective journal, it can be seen that he realised students were interested in gestures from the observation of a previous lesson and tried to develop the gesture-based multimodal approach further to help students with their listening practice. However, this gesture–auditory method did not turn out to be effective, as the students could not follow the rules even though the instructions were repeated. The teacher researcher then tried to find the possible reasons for this unsuccessful gesture–auditory method. He analysed the reason from the view of “difficulty of task” and thought that the activity was “too complex,” which required students to give too many reactions at the same time: getting the teacher’s instruction, reflecting on the right answer in the mind, cooperating with a partner, and showing gestures. What made thing worse was that the “10 digit” and “single digit” put extra obstacles

in their way of the right answers. The teacher researcher then noticed that a multimodal method should be “simple and effective” rather than “complicated and misleading.” If there is redundant information or an excess of mode showing up in the same multimodal method, the efficiency of this method can be decreased. Zhang pointed out that “从模态之间的配合的角度讲，如果不同模态产生矛盾、相互抵消、相互无关、互不衔接等现象，还可能降低教学效果” (Zhang, 2012, p. 18). This means that from the perspective of the cooperation among modes, teaching could be less effective if the different modes are contradictory, negative, irrelative, or disconnected. In the same way, if the rules in a multimodal activity are complicated and make the students feel overwhelmed, teaching efficiency could also be diminished.

The gesture–auditory method “Listen and Show Me Gestures” was employed again during Cycle 2, Week 5 when learning “Figures.” The teacher researcher learned lessons from his experience in Cycle 1, Week 3 and simplified the settings and rules of the method. He conducted the gesture–auditory method in the lesson and collected data from observation, his self-reflective journal, and group interview. Data was presented as follows.

The teacher pronounces one of the words for figures, and students are required to show the direction with the second finger to the teacher. For example, “” for “gao” [tall].

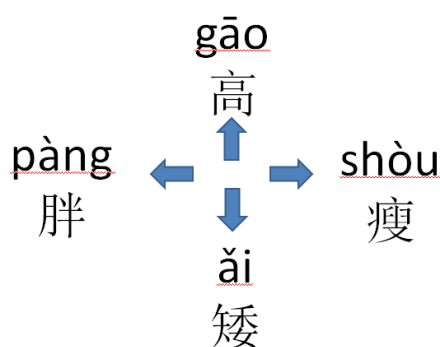


Figure 5.2. PowerPoint slide: Figures.

--- Lesson Plan Segment, Cycle 2, Week 5

At the beginning, most students followed me and they were quick to find out the right gestures. Some girls’ movements were slight but still the answers were right. Some boys used the whole arm to make the posture and acted like an Ultraman [character in a Japanese cartoon]. Even the boy who seldom engaged in learning started joining us.

--- Observation, Cycle 2, Week 5

Data from the lesson plan describes the settings of the updated gesture–auditory method “Listen and Show Me Gestures.” Similar to the instructions employed in Cycle 1, Week 3, the teacher researcher’s instruction was auditory mode to the students, and the students showing their own fingers was gesture. Thus, the auditory mode and gesture were combined in this activity. However, the difference was that the updated activity, which only required students to point directions with fingers to show their answers individually (see Figure 5.2), made it easier for students to handle compared to that which the teacher researcher used in Cycle 1, Week 3. The rules were refined and became clearer and easier so that the emphasis returned to practicing listening skills.

The evidence from observation shows that students were engaged at the attention level as they “followed me and were quick to find out the right gestures.” This kind of engagement can also be seen from the participation of a boy who was seldom active in class activities. Although “some girls’ movements were slight,” they still followed us, which can be regarded as participation engagement. Several boys even took advantage of their arms and pretended they were Ultraman [a character in a Japanese cartoon]. They were not only following the instructions, they were enjoying the fun in this activity, practicing their listening, and contributing to the class as well. This was engagement at the affiliation level, at which students felt they belonged to the class. Compared to the situation in Cycle 1, Week 3 where students disengaged with the class because of the complicated activity settings, the updated gesture–auditory method showed optimistic results in student engagement.

The gesture–auditory method “Listen and Show Me Gestures” was adopted during Cycle 1, Week 3 and Cycle 2, Week 5. The combination of gesture and auditory mode promoted student engagement in listening practice when the modes were integrated properly. The mode combination should give priority to the learning practice rather than the activity itself. The settings of the multimodal method should be easy and clear.

### **5.2.2 Gesture–auditory method: “度” [du]: Utilising the multimodal method**

The gesture–auditory method turned out to be effective in engaging students in learning in previous lessons. Therefore, the teacher researcher adopted this method again when teaching

the “food” topic. He implemented the lesson and collected data from the lesson plan, observation, self-reflective journal, and students’ group interview.

Table 5.1. Lesson Plan: Food

<b>Lesson outcomes:</b> 1. To learn food in Chinese (spring roll, fried rice, honey chicken, sweet sour pork and dim sum) 2. To understand the “borrowed words” between languages “dim sum – dianxin,” “buck choy – baicai,” “qiaoke li – chocolate,” “san mingzhi – sandwich” 3. To know the different eating habits between Chinese people and Australian people 4. To learn how to use chopsticks and the culture behind chopsticks	<b>Lesson outline:</b> Do now – Chinese food items – “borrowed words” – practice – video about Chinese – chopsticks practice  <b>Chinese concepts:</b> Food “Borrowed words” Chopsticks		
<b>A. Engagement</b>			
6’ Write down five words which come to your mind when you see the words “Chinese food”			
<b>B. Knowledge building</b>	<b>&amp; Transferring</b>	<b>&amp; Presentation</b>	<b>&amp; Evaluation</b>
9’ (1.5’ *6) Teacher writes Chinese food items (characters, <i>pinyin</i> and meanings) on board and provides pronunciation	Students copy characters, <i>pinyin</i> and meanings  3’ Reading after teacher	6’ “ <u>Listen and show me your gesture</u> ” activity  2’ Flash card practice	<i>According to student’s performance in activity</i>
3’ Explain the “borrowed words” from other languages	4’ Students think about the “borrowed words” in their daily life	4’ Discussion about “borrowed words”	
6’ “Chopstick” video and tell the story “The origin of chopsticks”	14’ Students practice using chopsticks and put paper balls (with Chinese food items on them to the related picture) with chopsticks	8’ A race between two groups, put paper balls into right places as fast as possible	
<b>C. Brief conclusion and culture experience time</b>			
2’ Read food items aloud a couple of times    3’ Introduction of next lesson    5’ Video appreciation			

Students were asked to listen to the teacher researcher's pronunciation and use their fingers to show their answers.

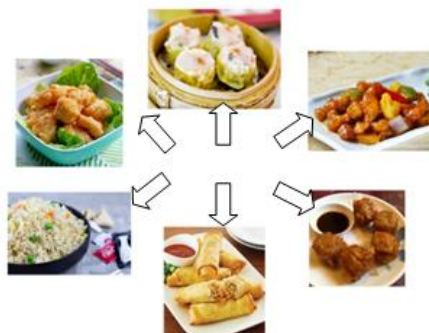


Figure 5.3. PowerPoint slide: Food.

--- Lesson Plan Segment, Cycle 2, Week 9

Students followed instruction and showed me the answers quickly. However, four rounds later, they slowed down and the voice became lower. Some looked at me doing nothing and some of them started to lean on the table.

--- Observation, Cycle 2, Week 9

T: I've taught you the food in Chinese and asked you to show me different gestures, do you still remember that? [Teacher shows the picture (see Figure 5.3) to students]

A: Yes, I remember.

B: No, can't remember.

C: I know this.

T: Did you like or dislike this activity?

A: Yes, because it was fun and a good way to practice.

C: I don't like it; it was not easy to remember.

D: Don't like, it was boring.

--- Focus Group Interview, Cycle 2, Week 10

However, their interest did not last for long. The reason may be teenagers learning characters. They get bored easily and cannot concentrate for too long. Therefore, if they repeat those gestures too many times, they will surely feel bored.

--- Self-Reflective Journal, Cycle 2, Week 9

Data from the lesson plan shows the settings of this gesture–auditory activity, which was almost the same as that in Cycle 2, Week 5. It also reveals that in the whole lesson, the gesture–auditory

method occupied six minutes during the knowledge transfer section, three minutes for repetition, and two minutes for flash card practice.

The evidence from observation indicates that students were engaged in class at the beginning of this activity. They responded quickly, which is at the captivation level of engagement. However, their interest faded as the time went by, which can be seen from “slow down,” “lower voice,” and “began leaning on the table.” At the end of this practice, some of them stopped. In this process, engagement decreased from the captivation level to the attention level, then dropped to the participation level. The teacher researcher noticed this phenomenon. He then referred to the data collected from the focus group interview and analysed students’ opinions toward this gesture–auditory method. The five students involved in the interview gave different comments about the gesture–auditory method. One of them held a positive view and considered the activity “a good way to practice.” The rest of the students found it less attractive and sometimes too hard to remember what they had learned.

In the self-reflective journal, the teacher researcher tried to find out why students’ engagement had decreased. The first reason lay with teenagers learning characters. Teenagers are easily attracted by new things and lose interest quickly. The second was to do with the time assigned to the particular activity; in other words, the “度” (“du”) [measure or degree] of using one kind of method. A master of 度 (du) can be understood as “temperate,” “measured,” or “no overuse no underuse.” If the gesture–auditory method were overused, students would not find it appealing. This can be connected to the Chinese concept of “过犹不及” (guo you bu ji) in *Confucian Analects*, which means, “Going too far is as bad as not going far enough.” Too much repetition of gestures leads to disengagement. Therefore, the period of time for the particular method should be properly managed.

During the implementation of this gesture–auditory method in Cycle 2, Week 9, the teacher researcher realised that the overuse of one method resulted in the drop of students’ engagement level. However, more research is needed to understand in teaching practice how long different multimodal approaches can last to obtain optimal effect in promoting students’ engagement.

### 5.3 Discussion

The gesture-based multimodal approach integrates the gesture mode and other modes, such as the oral mode and auditory mode. The aim of the gesture-based approach is to engage students in learning Chinese, especially in listening and speaking skills. Data analysis of the usage of the gesture-based approach during two cycles led to two main findings. The first is that the gesture-based approach improved students' engagement level because it catered for the teenage students' need of autonomy and triggered their interest by using body movement. However, although on the whole this was found to be effective, the approach did not receive a positive response from some individual students because of the diversity of students' personalities, gender, and learning styles. This implies that the teachers need to know students well and provide specific choices to individual students. The teacher researcher could also develop rapport with the students, which helps to reduce their anxiety and builds a comfortable learning environment.

The second finding is that the students turned out to be less engaged when the gesture-based approach was used beyond “度” (du). Good management of 度 (du) is (1) an appropriate number of different modes combined in one method, (2) an appropriate weight of setting or instruction in the multimodal method, (3) an appropriate period assigned for one specific method, and (4) an appropriate difficulty for the multimodal activity. An appropriate number of modes ensures students focus on practice rather than become lost in the complex modes. An appropriate weight of setting requires clear instructions and easy procedures to carry out the multimodal activity, which should always assist students' learning rather than being a stunt. An appropriate period for one method calls for the avoidance of overuse of the same multimodal method to maintain students' interest and engagement. An appropriate difficulty means that the challenges in the multimodal activity requires students to put in effort so that it is achievable. Activities that are too hard or too easy are not optimised multimodal activities to engage students.

The gesture-based approach has been applied by other researchers in various classes. Alison Porter (2016) carried out a study of teaching French as a foreign language with gestures,

pictures, and storytelling and investigated its effectiveness in prolonging students' memory of French vocabulary. Porter (2016) taught French vocabulary through two short stories, both accompanied by PowerPoint presentations but one with supporting gestures and the other without. Through the quantitative analysis, she showed the significant advantage for short-term retention of a story told with both gestures and pictures when compared with a story told with pictures only. Gesture, as "a form of elaborated encoding for young learners, in aiding target language memorisation and slowing attrition" (Porter, 2016, p. 236), contributed to students' learning and boosted memorisation due to retrieval cues and richer memory traces. The findings focused on prolonging memorisation, and this is aligned with the teacher researcher's statement that "gesture helped engage students in learning." The reason partly lay on the combination of gestures, the auditory mode (story telling), and the visual mode (pictures), which led students to a being level of engagement, at which students are an integral part of the class and they sense a feeling of presence while totally immersed in learning.

The gesture-based approach has also been investigated in the teaching of singing. Nafisi (2013) conducted research about teaching classical voice lessons with gesture and body movement. Her data was collected from surveys, and after data analysis, she pointed out that most voice teachers used gestures and body movement in their voice lessons for a better explanation and/or demonstration and improvement in students' learning experience. The advantages of gestures were concluded "to visualize hidden mechanisms, illustrated musical concepts or to provide and external attention focus" (Nafisi, 2013, p. 364). The functions of body movements were "to achieve relaxation, release of tensions, postural improvement, raising body awareness and physical energy" (Nafisi, 2013, p. 364). It was also notable that gestures as a tool to improve tonal quality and musical phrasing was mentioned, although this is less prevalent than other functions. In the voice class, students were required to sing and gesture, which can be seen as a gesture-based approach, specifically, the gesture–oral method. This is in common with the teacher researcher's method of visualising tone with gestures to improve students' learning.

## 5.4 Conclusion

This chapter analysed data related to the gesture-based multimodal approach from the teacher researcher's class. Data analysis shows that the gesture-based approach helped build up student engagement in listening and speaking. However, the evidence also indicates that problems occurred because of students' individual characteristics, the complex design of the gesture–auditory method, and the overuse of one multimodal method. Therefore, it was suggested that the teacher should get to know students, offer choices, and utilise one multimodal method within the 度 (du). The next chapter emphasises drawing-based approaches.

## **Chapter 6 Touch-based multimodal approach**

### **6.0 Introduction**

Chapter 6 emphasises the analysis of data collected from the use of touch-based multimodal approaches. Touch was integrated with the visual mode, oral mode, and auditory mode in the teacher researcher's class. This multimodal approach required interaction and cooperation among students.

### **6.1 Touch–visual–oral method**

The touch–visual–oral method was one of the teaching methods adopted in the teacher researcher's classroom. It combined the touch mode, visual mode, and oral mode to engage students in learning Chinese. With the touch–visual–oral method, students were required to draw with their finger while listening to and speaking Chinese.

#### **6.1.1 Touch–visual–oral method: Topic relevancy**

The touch–visual–oral method was utilised in Cycle 1, Week 3. The teacher researcher designed a touch–visual–oral activity “You Touch I Guess” to engage students in their Chinese reading, writing, and speaking practice. He made a lesson plan, implemented the teaching method, and collected data from the lesson plan, classroom observation, and self-reflective journal.

The touch–visual–oral method “You Touch I Guess” was designed for students to become familiar with the Chinese words (both sounds and shapes) around the topic of “numbers.” The rules of “You Touch I Guess” are as follows. Two volunteers are invited to play different roles as “toucher” and “guesser.” The toucher keeps their eyes open while the guesser closes their eyes. The toucher is then shown Chinese characters on a card, which they write with their finger on the guesser's back. Through feeling the touch, the guesser guesses the meaning and speaks it out in Chinese. The rest of the class act as “umpires.” They listen to the guesser and judge whether they guess correctly.

--- Lesson Plan Segment, Cycle 1, Week 3

Anna and Bella [pseudonyms] were invited to play the game. The number shown to Anna was “六” (liù) [number 6]. Bella turned around, closed her eyes, and waited for the touch. Her shoulders were shrugged and her arms bent with the fist lifted in front of the chest. When Anna started drawing on her back, Bella twisted her upper body slightly

and said, “Do it harder.” Then Anna wrote the character again with her finger, seriously and firmly. As Anna finished drawing the last stroke, Bella shouted out, “Oh! Oh, it’s six!” Just upon her voice, the rest of the class said, “In Chinese!” After thinking for three seconds, Bella spoke it out, “liù!” Then I asked the umpires, “Is it right?” and most of them replied, “Yes!”

--- Observation, Cycle 1, Week 3

The “touch,” which presented in the form of drawing on one’s back, is an interesting experience for students. They were excited about feeling the touch, so they concentrated on guessing what Chinese words the other one drew. The reason why students engaged in learning may also be because of the relevancy of the content. A Chinese concept goes that “巧妇难为无米之炊” (qiao fu nai wei wu mi zhi chui), which literally means “A skilful housewife can hardly make a feast without the necessary original material.” The numbers are ubiquitous and useful in daily life, which may lead to students’ interest in learning Chinese.

--- Self-Reflective Journal, Cycle 1, Week 3

Data from the lesson plan segment shows the principle of the touch–visual–oral method. The students received information from a card and this process was completed through the visual mode. Then, as they wrote the character on the other’s back, information was transmitted between two students through the touch mode. The receiver then presented the answer by pronouncing the Chinese word, during which the oral mode was stimulated. Thus, in this multimodal method, “visual mode,” “touch mode,” and “oral mode” were integrated.

The evidence from observation indicates that the student was interested in this activity, leading to concentration. This can be seen from the student, who had “closed eyes and waited for the touch.” It can also be noticed that the student was a little bit nervous when she “bent her arms and lifted her fist in front of her chest.” However, when the other student began touching, she twisted her upper body, indicating that she tried to get herself used to the touch, and “Do it harder” shows her determination to get the right answer, which she did in the end. The rest of the class watched and gave feedback. In this process, the two participants were an integral part of the class, and they sensed a feeling of presence while being totally immersed in learning (Whitton & Moseley, 2014). This is a sign of corporation engagement, which is a high level of engagement. The rest of the students watched and responded to the participants’ performance,

which can be categorised in engagement as belonging. At this level, students see themselves as part of a group or class in a meaningful way.

In the self-reflective journal, the teacher researcher tried to find out why this touch–visual–oral method promoted engagement in class. His analysis was twofold: The first falls on the nature of the touch mode. When touching, or feeling touch through part of the body, it is physically interesting because of the tickle. The second is attributed to the topic relevancy. To encourage engagement, two aspects are highlighted: engaging pedagogy and engaging curriculum. Teachers need to know how to teach as well as what to teach if they are to engage learners (Taylor & Parsons, 2011). Relevancy has also been mentioned by Claxton (2007); he suggested that if activities and curricula are to engage learners, the prerequisite is that the topic connects with students’ interests and concerns. According to this theory, the multimodal approach and the content embedded in the multimodal activity should be close to students’ daily life and linked to their prior knowledge. In this case, numbers are close to the students’ daily lives, so they are more likely to engage in class.

This touch–visual–oral method, “You Touch I Guess,” was employed during Cycle 1, Week 3. Evidence from the data shows that as well as the interesting nature of touch, topic relevancy might be an important factor in engaging students in class. The closer the topic to students’ daily lives, the more likely students are to engage in learning.

### **6.1.2 Touch–visual–oral method: Taking change and having fun**

The touch–visual–oral method, which received a positive response from students in Cycle 1, Week 3, was again employed in Cycle 1, Week 7 to help engage students in learning Chinese, this time under the topic of “family members.” The teacher researcher followed the same rules as the activity in Cycle 1, Week 3 and collected data from observation as well as his self-reflective journals.

Jay and Mike [pseudonyms] were invited to play this game and the card shown to Mike was “妈妈” (mā ma) [mum]. When Jay turned around and felt the finger touch from Mike, he could not help laughing but felt it very carefully. He bowed his head, frowned, and crossed his fingers, saying, “Do it again.” Mike drew again gently stroke by stroke (although not in the right order). Suddenly, Jay came up with the right answer and said, “mama.” The pronunciation was a little bit inaccurate but almost right. Then I asked the

“umpires,” “Do you think they made it?” Some of them were holding their chins, some were crossing their arms, some had their eyes open, and some were leaning forward, but most of them said, “Yes!” What’s more, led by me, they gave some applause to these two boys. The two came back with smiles, almost skipping. Many students raised up their hands and longed for a go.

--- Observation, Cycle 1, Week 7

This touch–visual–oral mode method shows advantage in that it can embed relaxing elements in a challenging activity, at the same time. Sometimes, students feel nervous and are afraid to fail in class. However, through touch and guess, students have fun. If the students feel relaxed, they are more likely to engage in learning and their potential is more likely to be fully found. In this case, they are apt to take the challenge and enjoy the process to succeed. Students also get the chance to practice Chinese (both writing and speaking) and gain confidence in continuous Chinese learning.

--- Self-Reflective Journal, Cycle 1, Week 7

Data from observation shows that although the student laughed when the other wrote on his back, he felt the touch carefully, which means the students were entertained by the touch and at the same time interested in the activity. Bowing the head and frowning indicates that the student was racking his brain and putting in effort to work out the answer. When the student asked, “Do it again,” he seemed to be encountering some difficulties. However, stimulated by the competing but relaxing climate created by the activity, he took the challenge and showed perseverance for achieving the goal. These reactions and words show that the student was engaged in the touch–visual–oral method activity, and he was encouraged to try his best to practice family members in Chinese. The students considered themselves part of the class, enjoyed the class, and tried their best to overcome difficulties, showing a high level of corporation engagement.

Data from the teacher researcher’s self-reflection implies that he tried to explore the advantage of the touch–visual–oral method in engaging students. The teacher researcher found that sometimes students hesitate when trying to overcome the challenge in learning, or they choose to dodge the difficulties. The latter may occur when the challenge is too difficult or the participants lose interest. The touch–visual–oral method helps to form a challenging situation and arouses the student’s passion to achieve the goal, at the same time providing a relaxing environment and adding fun to the learning. To encourage students to take a challenge is one of

the essential parts in promoting engagement and maximising students' potential in learning. Lev Vygotsky (1987) developed the concept of the zone of proximal development (ZPD) and believed that scaffolding is needed to boost students' determination to take a challenge and bring out their full proficiency. Vygotsky (1978) defined the ZPD as

the distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers. (p. 86)

According to ZPD theory, the zone of current development (ZCD) (Vygotsky, 1978) can be expanded under the help of adults or more capable peers, which progresses students to the threshold of the ZPD. The zone at this edge will become the new ZCD. ZPD theory is more about the relation between the scaffolding students acquire from adults, peers, and the development level they can reach. However, there is not much discussion about one important element in learning: fun. Based on the data collected from implementation of the touch–visual–oral method, the teacher researcher realised that adding fun into learning might be helpful for students to develop their ability to learn further. The mechanism is that the relaxing environment and fun disguises the challenge. In this way, students find it easier to take and overcome the challenge and subsequently, reach a higher level of achievement in learning. With the touch–visual–oral method, the students practiced Chinese not only with scaffolding from the teacher and working with their peers, but they also had much fun with the touch mode, which may boost their learning enthusiasm and further develop their learning outcomes.

The touch–visual–oral method “You Touch I Guess” was adopted again during Cycle 1, Week 7. The combination of touch, visual, and oral modes promoted student engagement in writing, listening, and speaking practice. What is more, this method further explored students' potential in learning by offering a relaxing but competitive learning environment.

### **6.1.3 Touch–visual–oral method: Feedback strategy**

At the end of Cycle 1, the teacher researcher organised a group interview to collect students' opinions toward some of the teacher researcher's teaching methods. Data about the touch–visual–oral method in the focus group interviews shows the following.

T: We've learned family members and numbers in Chinese. I used an activity called "You Touch I Guess" to help you remember those words. You were asked to draw on your classmate's back and guess what the word was. Do you still remember that?

A: Yes, I know that.

B: Yeah, yeah, you touch the other's back and guess. That's fun.

C: Number one is just a horizontal line.

D: I got very excited when I'm guessing the words.

T: It is an exciting game. And do you think this method helped you learn Chinese or not?

B: It helped because . . . you felt the touch and it was good.

C: I think it helped. I knew them at that time but I forgot most now.

D: I was too excited playing games and I looked at my notebook then, but I think I remember some of them.

A: I didn't play the game; it didn't help a lot for me, actually.

--- Focus Group Interview, Cycle 1, Week 10

Data from the students' focus group indicates that most participants remembered the touch–visual–oral method and enjoyed the activity. However, when it came to "whether it helps you learn or not," various opinions were provided. Some students gave positive comments on this method, focusing on their personal feelings ("good," "excitement"). They also responded to their memory of the Chinese words they had learned at that time and thought they remembered some of the words when playing the game, but they concentrated more on the activity than on remembering words, so they forgot most of them soon after. A student also gave a negative response ("It didn't help a lot actually"), because he was not a main player.

In that touch–visual–oral mode activity, I noticed that the student's pronunciation was a little bit inaccurate but almost right. When I asked the "umpires," "Do you think they made it?" and they said, "Yes!" then I just said, "Good job" and moved on, because we were so immersed in playing the game we neglected most chances to make improvement in either pronunciation or memory of words. This may partly have led to students' reflection about the vague memory of words in the focus group discussion. I think that though students' memories fade naturally, the touch–visual–oral method showed its weakness in helping students learn Chinese and deepen their impression. The reason is that both teacher and students during that time went too far in the game and overlooked that the activity was a chance for students to practice. I think ongoing assessment and feedback can be given during and/or after the activity, especially when there is room for students to improve Chinese learning. I also find that all I can say when I give feedback to my students are "Good job," "Well done," and "Excellent," which are insufficient in the classroom.

--- Self-Reflective Journal, Cycle 1, Week 10

In the self-reflective journal, the teacher researcher realised the deficiency of the touch–visual–oral method in helping students grasp the correct pronunciation and remember words. He attributed this flaw to the lack of feedback, without which the activity is only a game rather than a process of learning. Feedback is “information with which a learner can confirm, add to, overwrite, tune, or restructure information in memory, whether that information is domain knowledge, metacognitive knowledge, beliefs about self and tasks, or cognitive tactics and strategies” (Winne & Butler, 1994, p. 5740). The purpose of feedback is mainly to reduce discrepancies between current understandings and performance, and a goal. It may work through affective processes, or alternatively, a number of cognitive processes. The former includes increased effort, motivation, or engagement. The latter contains “restructuring understandings, confirming to students correct or incorrect, indicating that more information is available or needed, pointing to directions students could pursue, and/or indicating alternative strategies to understand particular information” (Hattie & Timperley, 2007, p. 82). According to Hattie and Timperley (2007), effective feedback should address three questions: (1) What are the goals? (2) What progress is being made toward a goal? (3) What needs to be done to obtain better results? The effectiveness of feedback also partly depends on the level at which it operates, including “the level of task performance, the level of process of understanding how to do a task, the regulatory or metacognitive process level, and/or the self or personal level” (Hattie & Timperley, 2007, p. 86). Apparently, if there is no detailed explanation of the assessment criteria, the goals are not specific. Thus, feedback given in this touch–visual–oral method is limited to confirming to students whether their answer is correct or incorrect through their peers’ judgement, not the exact pronunciation and tone. Therefore, the feedback in this activity was not effective enough to reduce discrepancies between what students already knew and what a more accurate pronunciation was. When giving feedback, teachers are expected to provide the standards to students, to compare those standards to the students’ own work, and to help students take action to close the gap between the two (Sadler, 1989). In this case, when there is a flaw in students’ learning, a suggestion could be for the teacher to first give positive feedback to the student and then seize the opportunity to help that student improve. Specifically, after asking the umpires whether the player made it, the teacher may be aware of the distance between the students and their work, and help them move closer to the standard by adding, “Yes, all of you

did a good job! Now just follow me and we pronounce this word one more time.” In this way, ongoing feedback may help the teacher take full advantage of the touch–visual–oral activity to engage students’ learning as well as promote their memory of Chinese words. However, more evidence is still needed in this respect.

The interview and self-reflective journal about the touch–visual–oral method took place in Cycle 1, Week 10. Through data analysis, it was suggested that feedback may be provided timely, and specifically when carrying out the touch–visual–oral activity, to take full advantage of this activity for students learning Chinese.

## **6.2 Touch–oral–auditory method**

The touch–oral–auditory method refers to a teaching method that the teacher researcher employed in his class to engage students’ learning. This kind of method comprises touching, speaking, and listening. It was designed to engage students and develop their skills in writing, speaking, and listening.

### **6.2.1 Touch–oral–auditory method: Competitive learning**

The touch–oral–auditory method was one of the touch-based multimodal approaches in the teacher researcher’s class. This method was employed when teaching “clothing.” The teacher researcher designed the touch–oral–auditory activity “Tell Me What I Wrote” and inserted it into the lesson plan. He then collected data from the lesson plan, participant observation, and his self-reflective journal.

Students work in pairs: one as a toucher and the other as a teller. The toucher writes *pinyin* or characters on the teller’s palm. The words should be under the topic of “clothing.” After feeling the touch, the teller pronounces that word and the toucher should listen carefully to make sure the teller got the right answer. If the teller’s answer is right, then they receive one point. Two participants play as teller in turns. There are six rounds altogether. The one who gets the most points wins.

--- Lesson Plan Segment, Cycle 2, Week 6

Most students started the activity immediately. When the tellers felt the touch in their palm, most of them laughed or giggled because of the tickle. Some tried to pull their hand back, then they reached out again. “Come on Hans [pseudonym], I haven’t

finished.” The touchers were almost happy to write *pinyin*; some of the touchers even held the teller’s hand tightly so that they wouldn’t pull back again. Then I heard that some of the tellers already had the meaning of the *pinyin* written in their palm, and they pronounced it well. From the third round, some of the touchers began writing Chinese characters, which led to a situation where some of the tellers were stuck and felt confused about how to deal with the characters. Then some referred to the notebook and tried to figure out the meaning and pronunciation of those characters, while some gave up, and some did not even want to participate any more.

--- Observation, Cycle 2, Week 6

Students seemed to be curious about the tickle and they enjoyed that feeling of touch in the palm, so the students were willing to participate. They wanted to win the game so that they automatically chose to write Chinese characters, which made it more challenging for the teller to get the right answer. Some tellers tried harder and with the help of their notebook, they could still find ways to make it. I think this competitive learning environment stimulated students to do better in writing. However, some of the students did not like competition, and some of them easily gave up. I should find better ways to engage as many students as I can, such as adding some teamwork or group competition rather than individual competition.

--- Self-Reflective Journal, Cycle 2, Week 6

Data from the lesson plan segment introduces the rule of the touch–oral–auditory activity, “Tell Me What I Wrote.” It also indicates how the different modes were combined in this activity. The touch mode functioned as the information medium during the first step, when “One writes with their finger on the other’s palm.” After feeling the touch, the teller tried to recognise the word then pronounced it, which stimulated the oral mode. In return, the toucher listened and responded to the pronunciation from the teller to judge whether the pronunciation was correct for the word that was written. In this step, the auditory mode was utilised. Thus, the touch, oral, and auditory modes were integrated in this activity. Despite the setting of mode combination, data in the lesson plan segment also shows competitive factors in the activity, which can be implied from “The one who gets the most points wins.”

The evidence from observation shows that students “immediately” started the activity, which indicates they were extremely interested. Students “giggled” because of the feeling of touch, which shows that they were having fun when being touched on their palm. Some of the students even “held the teller’s hand tightly so that they wouldn’t pull back again,” saying “Come on Hans [pseudonym], I haven’t finished.” From this, we find that they persisted in the

activity and actively moved on. These are signs of captivation engagement in class (engagement as enthrallment), which signifies a situation that a person can be deeply immersed in a task at a cognitive level (Whitton & Moseley, 2014). Moreover, it can be seen from the observation data that some students chose tasks that were more challenging, such as “the toucher began writing Chinese characters instead of *pinyin*.” This also led to a challenge for the teller, which can be seen from “Some of the tellers were stuck and felt confused about how to deal with the characters.” At this point, a higher level of engagement was formed where students saw themselves as part of the group in a meaningful way (Whitton & Moseley, 2014) and devoted themselves to participate in class. However, two kinds of reactions from the tellers were observed later. One was seeking out the solution, such as referring to a notebook, while the other was giving up and feeling disappointed.

Data from the self-reflective journal shows that the teacher researcher explored the reasons why the touch–oral–auditory method engaged students in class. He found that the touch mode could be enjoyable both physically and psychosocially. The sensation of the palm being touched is fun in nature, while guessing the writing on part of the body is also a new and exciting experience to students. The teacher researcher then sought why some students actively took the challenge to write Chinese characters, and he believed that the desire to win the game was the major attributor. Competition has always been regarded as an effective way to stimulate people’s progress (Hung, Young & Lin, 2015). In a competitive environment, students tend to be ambitious, and studies indicate that students are motivated to make an effort to achieve a better performance in a competitive game-learning environment (Karakostas & Demetriadis, 2011). However, in this case, the competition led to two opposite reactions from the other participants. One was solve the problem and be cheered, the other was give up and be disappointed. The teacher researcher noticed that competition has two sides. For the winner, it is an achievement, but for the loser, it is a failure. Competition stimulates different feelings in winners and losers and might create ill effects for students (Lam et al., 2004). It is important to consider how to design a competitive learning environment to motivate students. As stated by Ames (1992), “Goals are reflected in the broader context of classroom learning environments” (p. 262). Competitive learning generally produces a negative environment based on self-interest,

whereas cooperative learning generally produces a positive environment based on mutual gains. To enhance the effectiveness of competitive learning in classrooms, it is suggested that cooperative learning should be embedded in competitive learning. As Slavin (1990) stated, because of the intergroup competition in the cooperative structure, students experience peer pressure to maximise the individual performance of the group. Further, elements of the cooperative learning framework are: (1) Classes are divided into small groups with two to six members, (2) Groups have an interdependent structure with high individual accountability, (3) Group objectives are clearly specified and defined, and (4) Group members support each other's efforts to achieve (Hung et al., 2013). The teacher researcher followed this method and upgraded the touch-based approaches in his following lessons.

The touch–oral–auditory method “Tell Me What I’ve Written” was used during Cycle 2, Week 6. The touch mode proved to be effective in engaging students in writing practice. It was also noticeable that the competitive learning environment helped students fully explore their potential. However, this kind of competitive learning causes problems for those who lose.

### **6.2.2 Touch–oral–auditory method: Collaborative learning**

A further touch–oral–auditory method was used in the teacher researcher's class during Cycle 2, Week 8 called “Touch, Whisper and Pass the Code.” The teacher researcher designed this method to engage students in Chinese writing, speaking, and listening practice. He made the lesson plan, implemented the teaching method, and collected data from the lesson plan, classroom observation, self-reflective journal, and students' survey.

The rules of this activity were as follows:

- Three in a group, one drawer and the others transmitters.
- Mr. Shi offers a code by whispering to one transmitter in each group.
- In each group, pass the code by touching or whispering to your group member.
- Transmitter No. 1 listens and writes *pinyin* or characters on No. 2's back.
- No. 2 says it (whispers) in Chinese to the drawer.
- The drawer should be the last one to get the code and colour in the clothes in worksheet.
- The code is like “hong se” [red] “shang yi” [red tops], and the drawer should paint the shirt of the woman red.

- Let us see which group will be the best.

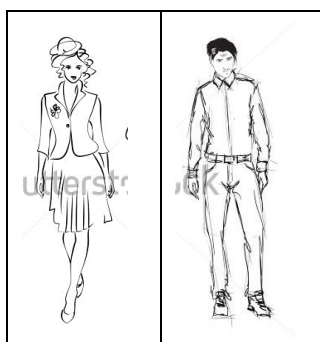


Figure 6.1. Student worksheet: Clothing colour-in.

--- Lesson Plan Segment, Cycle 2, Week 8

I whispered to the first transmitter in each group and they all listened very carefully with some even asking for my repeat to make sure of the right code. Then they turned quickly to the second transmitter in their group and wrote *pinyin* on his/her back (some of them referred to notebooks). At this point, some students hesitated for a while and whispered with hands shielding mouths to the third one. However, some of students did not get the meaning of the touching. After the first round, some of the drawers showed me their work excitedly while other groups were blocked in the middle. One drawer told me that one of her group members forgot the code so there was no possibility that they could make it. I also noticed that some groups painted the wrong colour (yellow), when they were expected to paint red.

--- Observation, Cycle 2, Week 8

The touch–oral–auditory method helped engage students, and the teamwork seemed to work well. Some students felt it was hard, but they could still refer to their notebook. Working together in a team and competing with other groups makes students feel more ambitious and less nervous.

--- Self-Reflective Journal, Cycle 2, Week 8

Data generated from the lesson plan segment provides information about how the touch, oral, and auditory modes were integrated in this touch–oral–auditory method. For the first student, the teacher’s pronunciation of words (whispering) is auditory mode. The first student drawing on the second student’s back belonged to touch mode. The second student speaking the word in Chinese to the third student is categorised as oral mode for the second student and auditory mode for the third student, who coloured in the figure in the worksheet. In this process, auditory, touch, and oral modes are combined to engage students in learning and practicing.

Data from observation indicates that students showed their concentration in practicing Chinese while they were participating in the activity, as they “listened carefully.” They also showed perseverance when they “asked for my repeat the pronunciation.” Excitement was seen after the first round and they “showed me their work excitedly.” It is also noticeable that there was competitiveness between groups, cooperativeness among group members, and responsibility for teamwork during the activity. This can be implied from students who “turned quickly to team member” and “whispered with hands shielding mouths.” All these signs indicate that students were engaged in learning and practicing at a high level of incorporation, which describes students as “an integral part of the class [who] sense a feeling of presence while totally immersed in learning” (Whitton & Moseley, 2014). However, there were also disadvantages, as some group members “didn’t get the meaning,” were “blocked in the middle,” or “painted the wrong colour.” These signify some flaws in this touch–oral–auditory method.

Data from the teacher researcher’s self-reflective journal indicates that the teacher researcher attributed students’ engagement to teamwork, which can be regarded as collaborative learning. Collaborative learning focuses on activating learners and emphasising the learning process and outcome (Slavin, 1990). In the Johnson and Johnson model of collaborative learning, there are five essential elements: positive interdependence, promotive interaction, individual accountability, group processing, and social skills (Johnson & Johnson, 1989). In this case, three students in a team learned and/or practiced Chinese together. They passed a code from one to another by touching and/or whispering. They were interdependent from each other, and there had to be interaction to pass the code. Every group member had its unique role, which shows individual accountability. As the activity continued, the students needed to control the timing and pace, as well as add some gesture or mother language to complete the whole procedure. Thus, the touch-based approach, together with a collaborative learning environment, promoted students’ engagement in the teacher researcher’s class.

At the end of Cycle 2, the teacher researcher handed out a survey about this touch–oral–auditory method to collect data from the students.

During a previous lesson, we had an activity, “Touch, Whisper and Pass the Code” when we learned clothing:

1. Do you still remember it?



2. What do you think about our activity?

(Is there anything about the activity you like or dislike?)

3. Why?

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

\_\_\_\_\_

Thanks!

--- Student Questionnaire, Cycle 2, Week 10

According to the feedback, a table to illustrate students' opinions toward this touch–oral–auditory modal activity was formed.

Table 6.1. Results of Student Survey

Q2	Q3
(Positive) “It was a fun game.”  “Educational and enjoyable.”  “It helps us remember colours and clothing in Chinese.”	(Negative) “It was sort of awkward :)”  “Not very fun.” “Boring.”  “I disliked that some of our group members couldn’t remember it.”
(Positive)  “We all cooperated well and we were able to learn more words in Chinese but in a fun and enjoyable way.”  “Because we can get better at talking in Chinese.”  “It was competitive and we learnt to memorise and hear Chinese words.”  “it is a good listening activity”	(Negative)  “Not enough fun stuff.”  “I don’t like it because I don’t know the words very well and it gets hard.”  “Because I was trying hard but some people just couldn’t concentrate enough”  “Not really as well because sometimes you would forget about it.”

---- Student Survey, Cycle 2, Week 10

Data in the student survey (2016) was analysed. For Question 1, “Do you still remember it?” most wrote “Yes.” Among the feedback for Question 2, there were two main opinions. Most students remembered it and thought it was a good activity. For example, “It was a fun game,” “Educational and enjoyable,” and “It helps us remember colours and clothing in Chinese.” Negative opinions toward this activity included “It was sort of awkward,” “Not very fun,” “Boring,” and “I disliked that some of our group members couldn’t remember it.” In the responses to Question 3, those who considered this activity a good game wrote that “We all cooperated well and we were able to learn more words in Chinese but in a fun and enjoyable way,” “Because we can get better at talking in Chinese,” and “It was competitive and we learnt to memorise and hear Chinese words.” However, the feedback from the rest of the students shows “Not enough fun stuff,” “I don’t like it because I don’t know the words very well and it

gets hard,” “Because I was trying hard but some people just couldn’t concentrate enough,” and “Not really as well because sometimes you would forget about it”.

Through the analysis of the student survey, we find that most students were fond of this touch–oral–auditory method. However, there are conditions with this method, which come from the students’ unfamiliarity with the words, from their other group members’ lack of concentration, and the method itself not being fun enough. From these conditions, we see that students reacted differently to the same teaching method, and their academic achievement seems to be an important factor in their view of this method. Therefore, further study is needed to address the questions practically: How can the achievement gap among students in different levels be reduced, and how can students in different levels cooperate in learning?

The touch–oral–auditory method, “Touch, Whisper and Pass the Code” was adopted in Cycle 2, Week 8. The touch-based multimodal approach was designed as a collaborative learning process. Data analysis indicates that when the touch-based multimodal approach was implemented in a collaborative learning environment, there was a strong effect in engaging students in learning. However, challenges still exist because of the different levels of students in a class.

### **6.3 Discussion**

The touch-based multimodal approach integrated touch mode with other modes, such as visual, auditory, and oral modes. The aim of the touch-based multimodal approach was to engage students in learning Chinese, especially in writing practice. Data analysis of the touch-based approach used during two cycles led to two main findings. The first finding is that the touch mode proved to be effective in engaging students in writing practice because of its interesting nature. However, topic relevancy and feedback are also elements that the teacher should think about before and during teaching. This implies that the closer the topic is to the students’ lives, the more likely students will engage in learning. The finding also suggests that feedback should be provided in a timely manner, and specifically when implementing the touch-based multimodal approach; in this way, multimodal methods give students a chance to learn rather than only play and have fun.

The second finding is that the touch-based multimodal approach promotes students' engagement by encouraging students' interaction and developing the learning environment. The learning environment can be relaxing, competitive, and collaborative. The relaxing environment decreases students' worries about their mistakes in class, the competitive environment helps them to fully explore their potential, and the collaborative environment motivates learners to work with others, bringing the entire group to success. The touch-based multimodal approach can be used to develop these environments simultaneously to engage students in learning Chinese.

The touch-based approach has been adopted in various classes by teachers in different fields, such as teaching the blind (Silva, Ventorini, Siega, & Rocha, 2015), teaching snowboarding (Spelmezan, 2012), and recognising maps (Salleh & Ismail, 2013). Calik and Kargin (2010) conducted research about the dot notation method (touch mathematics) in their mathematics class in Ankara, Turkey. They studied the effectiveness of this touch mathematics technique in teaching basic summation skills to students with mild intellectual disabilities. The dot notation method involves visual, auditory, and tactile modes. The settings are described as follows. The students mark the touch dots (dots on the numbers and dots in circles) at the same time as looking at the number (visual) and counting the numbers (auditory) with their pencils (touch). The students are taught to count the touch dots on each number to help them in addition, subtraction, multiplication, and division. After quantitative analysis, Calik and Kargin pointed out that "teaching provided in line with the Touch Math technique based on a direct teaching approach is effective in teaching basic addition skills to students with mild intellectual disabilities in general education classrooms" (2010, p. 203). This means that the touch-based teaching method promoted the learning results of students with mild disabilities in mathematics. This is in line with the teacher researcher's finding that the touch-based multimodal approach promotes students' engagement and learning.

## **6.4 Conclusion**

This chapter analysed data related to the touch-based multimodal approach used in the teacher researcher's class. Data analysis shows that the touch-based approach helped to develop a relaxing, competitive, and collaborative learning environment, thus promoting students' engagement in learning Chinese, especially in writing. However, the evidence also indicates that problems occur when there is a lack of feedback. Therefore, it was suggested that the teacher provides timely feedback to ensure the touch-based approach helps students to learn rather than just have fun. The next chapter is a conclusion of the thesis.

## **Chapter 7 Discussion and conclusion**

### **7.0 Introduction**

This chapter aggregates the analysis of data in the three previous chapters, discusses the findings, and makes a conclusion for the study. It first reports the usage of multimodal approaches by examining the practice of mode combination and discusses the advantages and deficiencies of multimodal approaches in this study. The second part provides suggestions for adopting multimodal approaches, including the 度 (du) of multimodal method design and scaffolding from teaching strategies. The third part presents the implications of the study, mainly for teacher–student rapport. Finally, it considers the limitations of the study and draws the conclusion.

### **7.1 Multimodal approaches in practice**

Various multimodal methods were employed and studied during this research. This part presents a summary of practical methods used during the study, discusses the strength of the multimodal approaches, and offers tips in designing multimodal methods.

#### **7.1.1 Summary of multimodal approaches in practice**

In this study, the visual mode, auditory mode, oral mode, tactile mode, and gestures were the main modes used and combined to engage students in learning. These combinations form the multimodal activities, which when embedded with instructions become multimodal methods. Table 7.1 shows all multimodal methods in practice from this study, classified into three categories based on their major mode: picture-based multimodal approaches, gesture-based multimodal approaches, and touch-based multimodal approaches.

Table 7.1. *Summary of Multimodal Methods in Practice*

Picture-based multimodal approaches	Visual–auditory methods	“Listen and Catch the Word”
		“Listen and Guess Who”
	Visual–oral methods	“Tell Me the Colour Of”
		“Say It as I Point Out”
Gesture-based multimodal approaches	Gesture–oral method	“Finger Dance We Pronounce”
	Gesture–auditory method	“Listen and Show Me Gestures”
Touch-based multimodal approaches	Touch–visual–oral method	“You Touch I Guess”
	Touch–oral–auditory method	“Tell Me What I Wrote”
		“Touch, Whisper and Pass Code”

The multimodal methods in this research often contained two to three kinds of modes, which could be integrated by clear instructions in an activity. The effect of utilising multimodal approaches was to stimulate students’ various senses, optimise the presentation of information, arouse students’ interest, and promote their engagement in learning Chinese. These multimodal methods mostly contributed to the teacher researcher’s class and showed positive effects in student engagement. However, evidence for the universality of these multimodal methods is still needed. The teacher researcher hopes that they can be used, tested, and updated in different classroom contexts.

### 7.1.2 Multimodal approaches and teaching content

The teacher researcher also explored how various modes can be employed in TCFL classes in terms of the suitability for the teaching content (e.g., listening, speaking, reading, and writing). The findings show that in general, the auditory mode matches with listening skills, and the visual mode is suitable for reading. The touch mode shows strength in writing and oral mode in speaking.

However, in practice, especially when different modes were integrated, the situation was different. First, a major mode usually prevailed while a minor mode assisted. For instance, in the visual–oral method, pictures might be used as an eye-catcher, while in actual fact, students’

pronouncing the words was the real point. Although this does not conflict with the idea that one type of mode usually matches with one kind of teaching content, the priority of modes in a typical multimodal method affected the function of these modes. Second, all modes utilised in the multimodal method equally contributed to teaching. For instance, with the auditory–touch method, students listened to the teacher and wrote the word they heard on another student’s back. In this process, both listening and writing were practiced, with both the auditory mode and touch mode showing strength in the respective area.

### **7.1.3 Advantages of multimodal approaches**

The multimodal approaches showed strength at two levels: mode level and mode combination level. On the mode level, the media stimulated students’ senses by various modes, which contributed to students’ individual engagement. At the mode combination level, with an organised activity and with the assistance of clear instructions, different modes helped to construct the learning environment in class.

Advantages of the mode level are as follows. With picture-based methods, pictures were efficient in arousing students’ interest, because they acted as a visual stimulator and a reminder of students’ prior knowledge during their learning. Specifically, pictures as something they could “read” reduced students’ “foreignness” to the Chinese language in class. This helped them to establish a sense of belonging and connection between Chinese and their real lives. Pictures were also a visual facilitator, which stimulated students to establish a connection between colours and visual images, and the Chinese words. This prolonged their concentration on learning in the Chinese class. The gesture-based approach improved students’ engagement level, because gestures cater to teenage students’ need of autonomy, and triggered their interest by being able to control their own bodies. The touch mode proved effective in engaging students in writing practice, because when touching or feeling the touch on part of the body, it is physically interesting because of the sensation. The touch mode also helped to further explore students’ potential in learning by offering a relaxing but competitive learning environment.

With the multimodal approaches, a series of mode combinations and instructions turned the multimodal methods into multimodal activities or games. When these modes were integrated and set in a game frame, they required students to work together or/and compete with their friends, like playing a game. Therefore, the class environment was relaxing and designed as a competitive environment or cooperative learning environment according to the teacher's will. The relaxing environment decreased students' worries about their mistakes in class, the competitive environment helped students to fully explore their potential, and in the collaborative environment, learners were motivated to work with others, bringing the group to success.

#### **7.1.4 Deficiencies in multimodal approaches**

Data indicates that deficiencies in multimodal approaches tend to occur when designed improperly. First, it occurred when too many modes were involved in one multimodal method. Specifically, when different modes were contradictory, negative, and irrelative or disconnected, teaching was less effective. Second, when the rules/instructions in a multimodal activity were complicated, the students felt overwhelmed and teaching efficiency tended to be diminished. This could be connected to a Chinese concept of “过犹不及” (guo you bu ji), which in *Confucian Analects* means, “Going too far is as bad as not going far enough.” Too much repetition of one method led to disengagement. Therefore, the period for the particular method should be properly managed. Last, difficulty of the multimodal activity also hindered the effect of multimodal approaches. When the task was beyond the students' reach or too easy for them to achieve, this kind of multimodal method tended to be ineffective.

Multimodal approaches also led to a situation where entertainment surpassed learning. Attracting students by multimodal activities was one thing, but paying attention to learning and remembering knowledge when participating in the activity to some degree was another. There was a chance that students were so excited about the activity that they concentrated only on playing rather than learning. Although the multimodal activity also required students to apply what they had learned, they easily forgot. Fancy strategies to engage students in a way that they love to participate might not mean that students are engaged in learning.

## 7.2 Supplementation

Although the multimodal approach proved to be a good way to engage students in class, the expected effect of the multimodal approach could not be achieved without the support of other factors, meaning that the multimodal approach should be implemented with supplementation. Supplementation can be a multimodal method design strategy, a teaching strategy, the scaffolding from material, and/or the relationship between the teacher and the students. With supplementation, the effect of the multimodal approach in engaging students in learning can be improved.

### 7.2.1 The 度 (du) of multimodal approach design

Multimodal approaches require a combination of different modes to engage students in learning. However, this does not mean that the more modes are integrated in one method, the better that method will be. The complex setting of a multimodal method and the long time that one method lasts may also lead to negative effects. Therefore, mastery of 度 (du) is needed when designing and utilising multimodal approaches. A master of 度 (du) can be understood as temperate, measured, or no overuse/no underuse. A good management of 度 (du) requires (1) an appropriate number of different modes combined in one method, (2) an appropriate weight of the setting or instruction in the multimodal method, (3) an appropriate period assigned for one specific method, and (4) an appropriate difficulty of the multimodal activity. A proper number of modes ensures students focus on practice rather than become lost in complex modes. The number of modes is suggested to be two or three. A proper weight of setting requires clear instructions and easy procedure for the multimodal activity, which should always assist students' learning rather than be a stunt. A proper period for one method calls for the avoidance of overuse of the same multimodal method to maintain students' interest and engagement. The teacher can observe students' behaviour and decide when to put an end to the use of one method and change to another multimodal method. A proper difficulty means that the challenges in the multimodal activity requires students to put in effort and is available for them to achieve. Those too hard or too easy are not multimodal activities to optimally engage students.

### 7.2.2 Teaching strategies

Teaching strategies are of great importance in the class, especially in the implementation of multimodal approaches to engage students. Several strategies were highlighted in this research: modelling, medium usage, timely positive feedback, group practice, and offering choices.

*Modelling* is necessary in building students' memory and knowledge transfer. Although the teacher's modelling tends to be monotonous, it is the basic step for the following movements in the multimodal approach. Sufficient modelling guarantees the reinforcement of the students' memorisation of the words or pronunciation, so that students are able to carry out multimodal activities that require the use of what they have learned during class. In these activities, students use repetition to memorise the knowledge.

*Medium usage* mainly refers to taking *pinyin* as a visualised scaffold to reduce the difficulty for students to pronounce Chinese. *Pinyin* is a bridge to link characters and sounds, to integrate the visual and auditory modes. With the successive levels of temporary support provided by the teacher, students may reach higher levels of comprehension and skill acquisition, specifically, the ability to connect characters with sounds, which they may not be able to do or may be hard to achieve without the scaffold from *pinyin*.

*Timely positive feedback* helps the teacher take full advantage of the multimodal methods to engage students, as well as to promote their memory of knowledge. When giving feedback, teachers are expected to provide standards for students, to compare those standards to the students' own work, and help students take action to close the gap between the two (Sadler, 1989). In practice, the teacher can first give positive feedback to the student and then seize the opportunity to help the student improve, rather than use the multimodal activity as only a game.

*Group practice*, rather than individual performance, avoided leaving students in uncomfortable situations and provided the chance for them to learn from each other. Students should feel more efficacious about their ability to learn and complete activities successfully when interaction among students is promoted, because they have a greater array of resources from which to draw than if they were working individually (Lage et al., 2000). In a small group,

stress can be shared and a comfortable learning environment could be formed, which is supposed to promote students' engagement.

*Offering choices* is a good way to reduce students' feelings of nervousness. Providing choices helps engage students by giving students genuine control over how they organise their learning, which builds their responsibility in class (Claxton, 2007). The point of these choices is that if a specific student wants to avoid their mistakes being exposed to the teacher, or if they feel uncomfortable with what they have been asked to do, they can do it in another way or decline to do it. If students are willing to overreact a little bit while still in a proper way, they can. In this way, students' desire for autonomy and increased self-consciousness and sensitivity during adolescence (Nicholls et al., 1990) can be addressed. Thus, engagement could possibly be promoted.

These kinds of scaffolding improve students' performance in Chinese learning and help retain their willingness to continuous learning.

### **7.2.3 Material selection**

Material selection is an essential part in multimodal approach design. The major factors are (1) topic relevancy, or whether the topic relates to students' daily lives, and (2) prior knowledge, or whether the material relates to what the students already know. If activities and curricula are to engage learners, the prerequisite is that the topic connects with students' interests and concerns, and the closer the topic is to students' daily lives, the more likely students are to engage in learning. Since Chinese language is a new and foreign language to students, it may lead to their feeling of distance and disconnection from the Chinese class. Thus, the proper connection of students' prior knowledge with the Chinese class is essential in engaging students' learning.

### **7.2.4 Teacher–student rapport**

Positive teacher–student relations help improve students' engagement. Students long for connection with their teachers and wish their teachers to know them as people. They also want teachers to understand the way they learn, and they expect the teacher to be clear about what

students understand and misunderstand. Further, students want to have such a learning environment where interdependent relationships can be built and a culture of learning can be promoted (Taylor & Parsons, 2011). When students are sure that their relations with their teacher is interdependent and that the teacher shows respect, care, and trust to them, they will be apt to emotionally engage in class. When they consider that the teacher knows who they are, what their character is, what they can achieve, what they are afraid to do, and that there is no punishment or bad influence even if they make mistakes in learning, they will be more likely to accept the challenge and engage in learning. Therefore, to know students and get along well with them is a significant aspect that a teacher cannot neglect.

### **7.3 Recommendations for further research**

As action research, it has its limits in its generalisability and factors from participants. Based on these limitations and the researcher's findings, several recommendations for further research are given.

First, this research focused on how to use multimodal approaches in TCFL with beginning students in a Western Sydney school. The study explored how the teacher researcher can use this kind of teaching approach to engage students, rather than how the multimodal approach can fit all students in learning. Therefore, as a qualitative study, generalisability is a limitation of this study. Specifically, the project is of a small scale, as the research was conducted at only one site: two Chinese classes in a public high school in the Western Sydney region. Schools in different regions or cities may not share the same situation as the site school studied in this research. Therefore, the outcomes of this study may not fit for all schools. The participants were 30 students in the teacher researcher's Chinese classes, which is also of small scale.

The second limitation comes from the participants in the process of data collection. As a nonintervening study of intact classes, great variability exists. The characteristics and personalities of Australian students can differ among different schools and classes. Students' responses may vary because of their experiences, classroom behaviours required by the classroom teachers, or interests. As a result, the effect of certain teacher practices in engaging students may differ among different groups of students. Also, as part of the data was from

students' focus group interviews, in which the participants were young people around 13 years old, these participants may not have been able to fully express themselves or address the questions to the largest extent. This might have had an impact on data analysis and its reliability.

Nevertheless, much in the research is valuable for future research. It is at least a good attempt to adopt multimodal approaches to engage beginning learners in learning Chinese as a foreign language. Recommendations for further study are as follows. First, the study continued for eighteen months and the researcher went to the school to collect data only three times per fortnight. The amount of data is sufficient to develop a thesis, but more data is needed to make the study more persuasive. Therefore, the researcher recommends that a study on a larger scale be carried out when there is sufficient financial support, time, and researchers. Second, since the teacher researcher is a beginning teacher, the perspective might be different from experienced teachers. Therefore, the inclusion of more experienced teachers to adopt the multimodal approaches into other language classrooms would be advantageous. Third, other questions arose during the current study that may be of interest to other researchers, namely, (1) Does the multimodal approach retain students' memory of the knowledge, or not? (2) How can entertainment and learning be balanced in a multimodal method? (3) What can be the potential mode that helps engage students' learning?

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## Appendix 1: Ethics Committee Approval

Locked Bag 1797

Penrith NSW 2751 Australia

Research Engagement, Development and Innovation (REDI)

REDI Reference: H11671

Risk Rating: Low 2 - HREC

### HUMAN RESEARCH ETHICS COMMITTEE

27 June 2016

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 H11671 "Open all your senses: Teaching Chinese as Foreign Language with Multimodal Approaches", until 31 March 2017 with the provision of a progress report annually if over 12 months and a final report on completion.

#### 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.
3. 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: [http://www.westernsydney.edu.au/\\_\\_data/assets/pdf\\_file/0018/491130/HREC\\_Amendment\\_Request\\_Form.pdf](http://www.westernsydney.edu.au/__data/assets/pdf_file/0018/491130/HREC_Amendment_Request_Form.pdf)
4. Any serious or unexpected adverse events on participants must be reported to the Human Ethics Committee via the Human Ethics Officer as a matter of priority.
5. Any unforeseen events that might affect continued ethical acceptability of the project should also be reported to the Committee as a matter of priority
6. Consent forms are to be retained within the archives of the School or Research Institute and made available to the Committee upon request.

Please quote the registration number and title as indicated above in the subject line on all future correspondence related to this project. All correspondence should be sent to the email address [humanethics@westernsydney.edu.au](mailto:humanethics@westernsydney.edu.au).

This protocol covers the following researchers:

**Jinghe Han, Michael Singh, Jia Shi**

Yours sincerely



Professor Elizabeth Deane

Presiding Member,

Human Researcher Ethics Committee  
Western Sydney University

## Appendix 2: Letter to the Principle of Participant School

Dear Principal of Plumpton High School,

I am Jia Shi, the Chinese volunteer in Plumpton High School.

I wish to carry out a research project in my classes, as a part of my Master of Philosophy degree in Western Sydney University. I would be grateful to your permission and support. Over the classes for the rest of the year, I would like to implement multimodal approaches to teach Chinese, and to explore a better way to engage students in learning Chinese.

In my data collection, I plan to conduct focus group with the year 7 students and year 8 students that I am teaching. Focus groups interview with students will be carried out at the end of term 3 and the end of term 4. Eight students of each class will be invited, which means 16 students in total. Each focus group will last no longer than 30 minutes in lunchtime. Audio taping may be used to record. The following is the timeline for my research.

Type of activity	Participants in each school	Amount of time activity will take	When activity will take place	Classes	Participation strategy
Focus group	17yr 7 students 13yr 8 students	30 mins	After class time, term 3&4, 2016	1 [yr7] 1 [yr8]	students withdrawn from class

I guarantee the voluntary of the participants. They can withdraw the research at any time for any reason. I also guarantee the confidentiality of the information. I will only use the information that is in the public domain and within the law. If I need to use the information that is in any way sensitive, I will ask for the originator's permission before. I will ensure the total confidentiality of students', parents', teachers' as well as school's name.

Sincerely

Jia Shi

### **Appendix 3: Participant information sheet (Parent and Caregiver)**

School of Education  
Western Sydney University  
Locked Bag 1797  
Penrith NSW 2751  
Australia  
Telephone: 0468873665

#### **Participant information sheet (Parent and Caregiver)**

**Project Title:**

Open All Your Senses: Teaching Chinese as Foreign Language with Multimodal Approaches

**Who is carrying out the study?**

The Chinese teacher Mr Jia Shi is carrying out this study.

Your child is invited to participate in a study conducted by Chinese teacher Mr Jia Shi and the research will form the basis for the degree of Master of Philosophy (Education Research) at the Western Sydney University under the supervision of Dr. Jinghe Han and Professor of Michael Singh.

**What is the study about?**

The purpose is to engage students learning Chinese with multimodal approaches. The researcher will identify some ways of the integration of various modes that may contribute to the engagement of the learners in Teaching Chinese as a Foreign Language class and also identify the connections between modes and the teaching content.

**What does the study involve?**

Your child will be invited to take part in a focus group and discuss about their Chinese learning in a small group with his/her classmates. The content is about how he/she liked multimodal activities in Chinese class. The focus group will be done at the end of each term for two terms. There are four or five questions for them to focus on discussing about. One sample question is:

During a previous lesson, we have had an activity “Pronounce with our finger dance” when we learned how to pronounce the sounds of family members, do you still remember how we played it? How do you like it? Why?

In addition, the responses of your child towards the designed multimodal activities in Chinese class will be observed by the researcher but this will focus on his/her learning rather than his/her personal behavior.

#### **How much time will the study take?**

The focus group will be conducted at the end of term 3 and term 4. It will take 30 minutes of your child’s time each term.

#### **Will the study benefit me?**

The study aims to improve the engagement strategies for your child to learn Chinese. The researcher will try and readjust multimodal activities to suit your child’s learning throughout two terms. This will allow the teacher researcher to find problems in his teaching and improve his teaching spontaneously. From this perspective, this study will benefit your child’s learning.

#### **Will the study have any discomforts?**

The study contains observation and focus group which may cause some discomforts. Your child’s response to the designed multimodal activities will be observed. However, the observation will focus on his/her learning behavior rather than him/her as a person. The focus group will be held in a small group of 5 people and your child can discuss about how those multimodal activities helped or hindered their learning. Your child may feel uncomfortable to talk about his/her learning with other classmates, but he/she can choose to withdraw any time before or during the interview.

#### **How is this study being paid for?**

The study is voluntary work. No payment is involved.

#### **Will anyone else know the results? How will the results be disseminated?**

Only the researcher and his supervisors have access to the data collected from your child with ethical permission. Your child’s words recorded by written form during the focus group will be kept in a locked cabinet for five years, after which will be destroyed. The result of this study might be disseminated through a master thesis, short and long SERAP reports and publications with joint name of the research and the supervisors. Personal information such as names will not be released to anyone and only the results as a group will be a part of any

publication.

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

Your child's participation in the study is entirely voluntary: you are not obliged to consent. Your child may withdraw from the study at any time. However, it will not be possible to withdraw the child's data.

**Can I tell other people about the study?**

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

**What if I require further information?**

When you have read this information, Mr Jia Shi will discuss it with you further and answer any questions you may have. If you would like to know more at any stage, please feel free to contact head teacher of Plumpton High school Mr Domingo (E-mail: [Frederick.domingo@det.nsw.edu.au](mailto:Frederick.domingo@det.nsw.edu.au)).

**What if I have a complaint?**

This study has been approved by the Western Sydney University Human Research Ethics Committee. The Approval number is [H11671]

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

## Appendix 4: Dialogue Sheet for children



**Human Research Ethics Committee**  
**Office of Research Services**

### Dialogue Sheet

A dialogue sheet provides information about the project. It is similar to the information sheet but is written at the child/young person's level of comprehension. It is verbally read to participating students immediately before commencement of the project.

Project Title: Open All Your Senses: Teaching Chinese as Foreign Language with Multimodal Approaches.

#### **Who is carrying out the study?**

I (Mr Jia Shi), your Chinese teacher will conduct this study.  
The study is for my degree of Master of Philosophy (Education Research) in Western Sydney University.

#### **What is the study about?**

The study is about how to use games, songs, pictures and videos to make Chinese learning more interesting.

#### **What does the study involve?**

I will observe how you respond to my teaching through using videos, songs and other games in my class. At the end of the term, you will be invited to talk about how you like those ways of learning with peers. You will be asked 4 or 5 questions and you can discuss about whether different types of learning (through videos, songs, pictures) helped or not helped with your learning.

#### **How much time will the study take?**

If you wish, you will be invited to participate in two discussions with each for 30 minutes.

Your response to videos, song and other games will be observed in class for two terms but you don't need to do anything particular for this than a usual way of attending class.

### **Will the study benefit me?**

The study will be good for you because my purpose is to try different ways to teach you Chinese and my aim is to make you feel learning Chinese enjoyable.

### **Will the study have any discomforts?**

You may feel uncomfortable with my in-class observation and/or being in a group with your friends to discuss about your learning. But please remember, I only observe your direct learning responses to those ways of teaching I use. I will not observe you or your other classroom behavior.

You may not feel comfortable to talk about your learning with other classmates, but you can choose to stop being part of the focus group any time before or during the interview.

### **How is this study being paid for?**

The study is voluntary work. There will be no payment for you.

### **Will anyone else know the results? How will the results be disseminated?**

I and my two supervisors are the only people that can view the discuss content or the record of those learning responses. The results may be included in my thesis, submitted to Western Sydney University, but what you said as part of the discussions or your learning responses will not be identified.

### **What if I have a concern?**

When you have read this information, I will discuss it with you further and answer any questions you may have. If you would like to know more at any stage, please feel free to head teacher Mr Domingo (E-mail: [Frederick.domingo@det.nsw.edu.au](mailto:Frederick.domingo@det.nsw.edu.au)).

### **Can I withdraw from the study?**

If you do not want to go on with this study after it has started, you can decide to withdraw at any time.

**If you have any further questions as to this study, please feel free to ask Mr Jia Shi.**

## Appendix 5: Participant consent form for Parents and Caregivers



**Human Research Ethics Committee**  
**Office of Research Services**

### **Participant consent form(Parent and Caregiver)**

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

Project Title: Open All Your Senses: Teaching Chinese as Foreign Language with Multimodal Approaches

I, ....., give consent for my child ..... to participate in the research project titled Open All Your Senses: Teaching Chinese as Foreign Language with Multimodal Approaches.

I acknowledge that:

I have read the participant information sheet and have been given the opportunity to discuss the information and my child's involvement in the project with the 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 have discussed participation in the project with my child and my child agrees to their participation in the project.

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

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

I consent to participant the research by my child's being observed and doing focus group on his/her Chinese learning in Mr Jia Shi's Chinese lessons.

Return Address: I 1.21 School of Education, University of Western Sydney, Locked Bag 1797, Penrith  
NSW 2751

This study has been approved by the University of Western Sydney Human Research Ethics Committee. The Approval number is: [H11671]

If you have any complaints or reservations about the ethical conduct of this research, you may contact the Ethics Committee through the Office of Research Services on Tel +61 2 4736 0229 Fax +61 2 4736 0013 or email [humanethics@uws.edu.au](mailto:humanethics@uws.edu.au). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

## Appendix 6: Participant consent form (young people)



**Human Research Ethics Committee**  
**Office of Research Services**

### Participant consent form

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

Project Title: Open All Your Senses: Teaching Chinese as Foreign Language with Multimodal Approaches

I, ....., consent to participate in the research project titled Open All Your Senses: Teaching Chinese as Foreign Language with Multimodal Approaches

I acknowledge that:

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

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

I understand that my child's involvement is secret and that the information gained during the study may be published but no information about me will be used in any way that shows my identity.

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

Signed:

Name:

Date:

Return Address: I 1.21 School of Education, University of Western Sydney, Locked Bag 1797, Penrith  
NSW 2751

This study has been approved by the University of Western Sydney Human Research Ethics Committee. The Approval number is: [H11671]

If you have any complaints or reservations about the ethical conduct of this research, you may contact the Ethics Committee through the Office of Research Services on Tel +61 2 4736 0229 Fax +61 2 4736 0013 or email [humanethics@uws.edu.au](mailto:humanethics@uws.edu.au). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

## Appendix 7: Timeline for the research

	July Sep. 2015	– Oct.- Dec. 2015	Jan.- Mar. 2016	Apr.- June 2016	July -Sep 2016	Oct.- Dec. 2016
Determining the research questions	×					
Literature review	×	×	×	×	×	×
Methodology	×	×		×	×	×
Design the project	×					
Research proposal	×					
Ethics application		×	×			
Revise COC proposal			×			
Participant observation			×	×	×	×
Interview				×	×	
Self-reflection journal		×	×	×	×	×
Updating and analyzing data				×	×	×
Thesis submission						×

The timeline is a flexible plan that may change according the particular circumstances of the schools and any required changes as identified by the researcher as the study develops.

## Appendix 8: Observation sheet

Date: \_\_\_\_\_ Period: \_\_\_\_\_ Unit: \_\_\_\_\_ Lesson: \_\_\_\_\_

<i>Content</i>	<i>Multimodal method/activity</i>	<i>Observation of students engagement level</i>				
		Level 1	Level 2	Level 3	Level 4	Level 5
E.g. Practice Family members (爸爸 bà ba, 妈妈 māma, 爷爷 yéye, 奶奶 nǎinai, 哥哥 gēge, 姐姐 jiějie, 弟弟 dìdì, 妹妹 mèimei)	“You Touch I Guess” Two volunteers are asked to come to the front and play “touch” and “guess” roles respectively. The “toucher” is asked to keep his eyes open while the “Guesser” with his eyes closed. The “toucher” is shown the Chinese characters 妈妈 (mum) on a visual card (visual mode), and he is asked to draw/write what he saw, using with a finger on the “guesser’s” back (touch mode). The “guesser” carefully feels and sense it, and then speak out the word/character to the whole class (oral mode).	Resistant to the activity- not participating, playing with phone	Sleeping, staring at teacher but not responding to questions	Participating in the activity as instructed;	Laughing and enjoying the activity;	Do it again! Do it again! Ask relevant and meaningful questions
	Summary of observation (after class)	Jay and Mike (pseudonym) were chosen to play this game and the card shown to the “toucher” Mike, is “妈妈 māma” (mum). I noticed that when Jay, the “guesser”, turned around and felt the finger touch from Mike, he <u>could not help laughing</u> but <u>felt it very carefully</u> . He bowed his head, frowned and crossed fingers, saying “ <u>Do it again</u> ”. Then Mike drew again gently stroke by stroke (although it’s not the right order) and <u>looked back at the scaffolding</u> on the whiteboard at times. Suddenly, Jay came up with the right answer and spoke it out				

### **How to use the observation schedule:**

The observation sheet contains three columns. Column 1 is the content to be taught. Column 2 describes the multimodal methods/activities to be used in class. Column 3 provides space to record observation of students' engagement.

This observation schedule has drawn upon Schlechty (2002)'s categorization of student engagement. Schlechty (2002) defined a 5-level scale of student engagement, including rebellion, retreatism, passive compliance, ritual compliance and authentic engagement. In column 3, I have specified each level in terms of concrete student responses (see example in the table above). This schedule will be an easy tool to structure my observation of student engagement, and can help turning my notes into writing fairly quickly.

The table above is an example. In a previous lesson, I taught students family members including pronunciation and character writing of family members in Chinese. In this lesson, I designed a multimodal activity "You touch I guess" for students to practice. During this process I observed how they responded the activity and recorded students' engagement with this observation schedule.

## **Appendix 9: Student Focus Group Interview**

1. During a previous lesson, we have had an activity “Pronounce with our finger dance” when we learned how to pronounce the sounds of family members, do you still remember how we played it? What do you think about our activity? Is there anything about the activity you like or dislike? Why? (This is to find out whether the combination of gesture and audio mode helps engage students.)

2. Some time ago we learned birthday expressions in Chinese, we learned to sing “When is your birthday” song. Do you remember how to sing the song and the rhythm of the song? What do you think about our activity? Is there anything about the activity you like or dislike? Why? (This is to find out whether the integration of rhythm and audio mode promotes students’ engagement.)

3. We once played a “you write with your finger on my back and let me guess” game when we reviewed how to write characters of Chinese number from 1-10. Do you remember how we played it? What do you think about our activity? Is there anything about the activity you like or dislike? Why? (This is to find out whether touch mode helps engage students.)

4. I sometimes also asked you to be quiet and just follow me to copy characters on whiteboard for 5 minutes. What do you think about it? Is there anything about the activity you like or dislike? Why? (This is to find out whether mono-modal teaching helps engage students.)