An Exploratory Study on a Metacognitive Approach to Teaching and Learning of Spontaneous Speaking in Chinese Language with Audioblogs

Tan Yuh Huann

A thesis submitted to the
National Institute of Education,
Nanyang Technological University
in fulfilment of the requirement for the degree of
Master of Arts by Research

2008

Table of Contents

List of Figures

List of Tables

List of Appendices

Summary

Language learning involves four areas, namely listening, speaking, reading and writing. This study focuses on speaking, an area that is often neglected by teachers for various reasons. In many Chinese Language classrooms, which are teacher-centered by tradition, students have minimal opportunities to actively participate in the negotiation of meaning during lesson. To develop students to become independent learners of speaking in Chinese Language, a metacognitive framework developed by Goh and Zhang (2002) was adopted in this study. Twenty-five Secondary Two Express stream Chinese Language students, aged 13 to 14, participated in this eight weeks study. Audioblogs was used as the mediating Information and Communication Technology (ICT) tool through which the students interacted as they developed their metacognitive knowledge and metacognitive awareness. Through the use of scaffolding questions, the students carried out self-appraisals to evaluate and monitor their oral performances and planned for their future speaking tasks. The students were also tasked to provide comments for peers' oral performances. Seven usable sets of data were analysed and based on inferential statistics, the treatment may have led the students to improve significantly in their pretest-posttest oral performance scores. Through peer commenting and self-appraisal activities in the audioblogs, the students developed greater metacognitive knowledge and metacognitive awareness. The findings of this study provide much food for thought as I continue to explore innovative ways to teach speaking in Chinese Language by harnessing capabilities and potentials of emerging technologies.

Chapter 1 Introduction

This study examines the instruction of speaking skills through the use of audioblogs with metacognitive scaffolding from the teacher. It aims to contribute to the following research gaps: (1) the teaching of Chinese Language speaking skills (2) the use of audioblogs as a tool in learning Chinese Language speaking skills, and (3) the use of a metacognitive approach to Chinese Language teaching and learning.

1.1 Background of the Study

In Singapore, the majority of our children participate in six years of primary education (grades 1-6) and four years of secondary education (grades 7-10). Thereafter, post-secondary education offers many choices. Throughout these 10 years of education and beyond, English is adopted as the primary language for instruction. Singapore has adopted *bilingualism* as part of its language policy since 1956 (Gopinathan, 1998). Under this policy, a child attending primary or secondary education is required to learn two languages, the English Language and his/her mother-tongue language. Mother-tongue languages offered as subjects in Singapore schools include Chinese, Malay and Tamil. These three languages, together with English, form the official languages in Singapore (Gopinathan, 1998; James, 1998).

As a subject offered in the school curriculum, Chinese Language is offered at various levels, including *Higher Chinese Language* (at first language level), *Chinese Language* (at second language level), *Basic Chinese Language* (at second language level, with emphasis on listening and speaking), *Chinese Language 'B' Syllabus* (at second language level, tailored for students from English-speaking homes) and the *Chinese* (*Special Programme,* which uses approaches for teaching

Chinese as a foreign language). These subjects were designed to cater to the learning needs of students from different family and language backgrounds.

Secondary school Chinese Language students are examined in oral speaking when they sit for the Singapore-Cambridge General Certificate of Education examinations at Ordinary Level (commonly called the GCE 'O' level examinations) at the end of their secondary school years. During the oral examination, a student faces two oral examiners. These oral examiners are Chinese Language teachers from other schools who are appointed by the Ministry of Education to conduct the oral examination. There are two parts to the oral examination: The first part of the examination is to read aloud a given passage and the second part is to spontaneously speak on a given topic.

Given that English is the main language for instruction and Chinese is only offered as one of the many subjects in schools, English as the first language is given much attention, sometimes at the expense of the mother-tongue languages. The following sections further explain the motivation for this study.

1.1.1   Review of Chinese Language Education and Pedagogy

As part of an on-going effort to align Chinese Language (CL) education to meet the needs of our society and economy, the Singapore government has formed committees over the past fifteen years to review the CL curriculum. The most recent Chinese Language Curriculum and Pedagogy Review Committee (CLCPRC) was set up in the year 2004 to review the CL curriculum.

Among the list of recommendations put forward by the CLCPRC (Ministry of Education, 2004), two of these recommendations provided the underlying driving force for this research study, namely (1) to increase emphasis on listening

and speaking skills, and (2) to explore the use of ICT in promoting independent language learning and communication.

1.1.2   Teaching of Chinese Language in Singapore Classroom

Research projects that study the instructions of Chinese Language (CL) in the Singapore classroom is very limited (Liu, Kotov, Rahim, & Goh, 2005). Based on my personal experience and observations as a CL teacher over 5 years, many CL teachers, if not all, place more emphasis on the development of *reading* and *writing* skills during classroom instruction time; *listening* and *speaking* are very seldom taught. Students are expected to pick up listening and speaking skills when they listen to the teacher in class and if opportunities arise, they participate in answering questions or group work. Setting aside time to specifically instruct students in the techniques and strategies of speaking rarely happens during the curriculum time.

There are several possible reasons why teachers do not give emphasis to speaking. With regard to listening, reading and writing, a teacher can assess the understanding and performance of students through written assignments or tests. However, assessing individual students in speaking poses a problem, especially in a day-to-day classroom situation. The ephemeral nature of oral performances makes it difficult for teachers to provide exact and precise feedback without the use of special recording equipment. It is not easy to set up such recording equipment during normal classroom lessons where lesson time is usually limited. Even if such equipment is set up, as it used to be in language laboratories, to allow every individual in a class of 30-40 students to speak so that their oral performance can be assessed is impractical with limited classroom interaction time.

1.1.3   Exploratory Study in Teaching Speaking with Audioblogs

In an effort to harness the potential of emerging ICT tools to overcome challenges in teaching speaking, an exploratory study (Tan, Ow & Tan, 2006) was conducted to examine the potential of *audioblogs* as a tool in oral skills instruction. In that study, a framework based on Activity theory (Jonassen & Rohrer-Murphy, 1999) was used to guide the processes. It was found that classroom practices shifted from a teacher-centered model to a student-centered one as audioblogs mediated the interactions between the students, their oral performances and the class community. Audioblogs also served to provide space for individual students to make public their oral artifacts for comments and reflection. Teachers and students participants reported that they found audioblogs useful in facilitating the teaching and learning of Chinese Language picture conversation during the pilot. This is made possible with the reification of oral performances in the audioblogs. Teachers and students were able to interact with one another and perform learning activities based on the voice recordings captured in the audioblogs. This exploration study showed positive reactions from teachers and students about the usefulness of audioblogs. Based on findings from the pilot study, I believe that audioblogs can allow the adoption of a student-centered approach for the teaching of speaking. In addition, the features of audioblogs can facilitate students in their reflection processes involving metacognition, as afore described. The present study thus further explored the use of audioblogs with metacognitive approach to facilitate the instruction of speaking skills.

1.2 Purpose of the Study

The main purpose of this study is to examine the instruction of speaking skills by raising the students' metacognitive awareness through the use of audioblogs. Metacognitive awareness refers to the understanding of learner's individual cognitive processes and the strategies that lead to success in language learning (Chamot, 1999; Goh, 1997). Audioblog was the technology introduced to reify students' oral performances and to mediate the interactions among students for the teaching and learning activities. The use of audioblogs may engage the students in higher order thinking and develop their metacognition.

In this dissertation, I conducted the study with one group of 25 secondary two express stream students aged between 13 and 14, in a neighbourhood school in Singapore. All participants in this study were studying *Chinese Language* (at second language level) as their mother-tongue language subject in school. Speaking skill in this study refers to the ability to spontaneously speak on a general topic. This ability was listed as one of the desired learning outcomes of the Chinese Language curriculum (Ministry of Education, 2002). This speaking skill is examined when the students sit for the GCE 'O' level examinations.

1.3 Research Questions

Based on the considerations described above, the following research questions were generated to direct this study:

1. Does the treatment of audioblogging followed by peer critique and self-appraisal lead to an improvement in the Chinese language speaking skill?

2. What kinds of metacognitive behaviours are exhibited in the self-appraisal and peer critique of students' speaking tasks?

3. In what ways do students revise their oral performances based on their interactions in the audioblogging environment?

1.4 Significance of the Study

This study aims to contribute to the research gap in the teaching of Chinese Language speaking skills with the use of ICT; it is in alignment with the national effort in improving the instruction of Chinese Language. More specifically, with the introduction of audioblogs, I hope to develop independent learners by enhancing our students' metacognitive skills and knowledge.

1.4.1   Informs the Research and Practice of Teaching of Chinese Language, with
the Use of ICT

Linnell (2001) called for more effort to conduct research in the teaching of Chinese language as a second language. It is believed that such research can inform practice. Exploration and research into ICT use for language learning has been on-going since the 1960s with varying degrees of success (for details on the development of Computer Assisted Language Learning, refer to Levy, 1997; Kern & Warschauer, 2000; Chapelle, 2001). As we enter into the Knowledge Age (Bereiter, 2002), ICT is becoming indispensable in our daily lives. The development of new tools provides new possibilities and opportunities for language teaching and learning. The effective use of ICT was positioned as one of the 21st Century life skills (North Central Regional Educational Laboratory, 2003). However, the integration of ICT into the teaching of Chinese language is still at the exploratory stage (Zheng, 2006). By carrying out this research, I aim to contribute to the literature on the

teaching of CL with ICT, as well as to highlight the potential of audioblogs as an emerging tool for language learning.

1.4.2 Develops Metacognition in Chinese Language Students

Researchers have advocated learner-centred practices for teaching of languages since 1970s (Wenden, 1991). However, in Chinese Language classrooms in Singapore today, teacher-centered approach predominates with little opportunities for students to interact and negotiate meaning during lessons (Liu, Kotov, Rahim, & Goh, 2005).

One approach to encourage student's independent learning is through the development of student's metacognition (Chamot, 1993, 1999; Rolheiser-Bennett et al, 2000; Wenden, 1991, 1998). Numerous researchers have studied the benefits of developing various aspects of metacognition in listening (see, e.g. Cutting, 2004; Goh, 1997; Goh & Taib, 2006; Imhof, 2001; Rost, 2001; Vandergrift, 2003), speaking (see, e.g. Nakatani, 2005; Zhang & Goh, 2006), reading (see, e.g. Anderson 2002; Carrell, 1998; Mokhtari & Reichard, 2002; Zhang, 1999, 2001) and writing (see, e.g. Devine, Railey & Boshoff, 1993; Kasper 1997; Kellogg, 1994). In this study, I aim to develop a metacognitive approach to teaching Chinese Language speaking so as to develop students to become independent learners of CL.

1.4.3 Alignment with Pedagogical Recommendations

As mentioned in the previous sections, the recommendations by the Chinese Language Curriculum and Pedagogy Review Committee included development of independent Chinese Language learners, an emphasis towards developing students' speaking proficiencies and the exploration of ICT tools to enhance learning of CL

(Ministry of Education, 2004). The focus of this study is consistent with the national effort in improving CL instruction in Singapore.

1.5 Overview of the Dissertation

This chapter provides the background information of the study and the reasons that motivated the study. Chapter 2 provides a literature review of the various topics related to the present study and explains how theories and findings from past studies have helped to shape this study. Chapter 3 provides details on aspects of the treatment of the study. This is followed by a discussion on the methods used to assess the learning outcome of the research questions. In Chapter 4, the findings to the research questions are presented and discussed. Chapter 5 summarises the findings of the study and proceeds to discuss the implications and limitations of the study. Recommendations for classroom adoption of the use of audioblogging for teaching and learning of speaking skills, as well as future research are also highlighted.

Chapter 2 Literature Review

2.1 Chapter Overview

In this chapter, I sought to review what had been learned and accomplished in the area of teaching languages of the Western world and the Chinese language, with particular focus on speaking. Next, the theory and applications of metacognition were reviewed for its suitability to shift the teaching of Chinese Language toward a learner-centered approach. Lastly, the use of computers and related technological tools to assist language learning and speaking were examined. Through this literature review, I aim to identify a gap in existing research and to situate the current study within the historical context of related research studies.

2.2 Language Teaching and Teaching Speaking

Language teaching in the Western world has seen many changes in its approach since the twentieth century. Each of these changes was closely related to either advancements in language theories or a change in the perceived future needs of learners in their language competencies (Richards & Rodgers, 2001). There are many similarities between how language teaching is viewed in the western world and how language teaching is viewed by the Chinese. As China embarked on its open-door economic policy in 1979, a need was generated for innovative teaching methods to help the rest of the world learn the Chinese language. Much research effort has been put into the field of teaching Chinese as a second language (TCSL) for the past 20 or more years (崔永华, 2005). TCSL is concerned with the teaching of Chinese language to non-native speakers.

   Where methods of teaching are concerned, both Western researchers and their Chinese counterparts agreed that these methods have to be informed by

language theories and language learning theories (李开, 2002; Richards & Rodgers, 2001). In formulating these teaching methods, theories about the languages of the Western world have influenced how Chinese academics viewed Chinese language since the 19th century (李开, 2002). As such, theories on Western languages affected how Chinese language was taught as Chinese researchers examined these theories to find out their relevance in the context of Chinese language. Similarities can be observed in comparing methods of teaching English language and Chinese language to non-native learners. Based on my personal observation, the *Situational Language Teaching* (SLT) (Richards & Rodgers, 2001) approach developed by the British applied linguists during the 1930s to 1960s can be observed in the design of lesson materials and language teaching in a Singapore Chinese Language classroom today. Key ideas of the SLT approach such as the emphasis on accurate pronunciation and grammar structures, generalization of vocabulary and sentence structures picked up in the classroom to situations beyond the classroom, and a highly teacher-centered approach are adopted.

In the literature, it was noted that the teaching of Chinese language to native Chinese has not become a research discipline unlike the teaching of Chinese as a second language (吕必松, 2002). Much research efforts were channelled into the teaching of Chinese to non-native speakers, as earlier mentioned. Reviewing the definition of Chinese as a second language, 吕必松(2006) proposed the use of a chronological order of acquiring the language to differentiate a first language and a second language. The language acquired and learnt after birth is the first language. Any other language learnt after that is considered second language. Based on this definition, Singapore students studying Chinese Language who came from Chinese

speaking homes are learning Chinese as a first language, and those who came from English speaking homes are learning Chinese as a second language. Language lessons for first language students and second language students should be differentiated as these two groups of students have different needs (吕必松, 1995).

However, in a typical Chinese Language classroom in Singapore, most teachers do not make such a differentiation although students speak different languages at home. Research on the effect of adopting a uniform method of Chinese Language teaching for Singaporean students regardless of their different family language background appears to be lacking.

Imparting the four basic skills (listening, speaking, reading and writing) of a language is the primary purpose of most Western world language teaching methods (Richards & Rodgers, 2001). This also applies to the teaching of Chinese language (吕必松, 1995, cited in 刘珣、田善继、冯惟钢，1997). As the teaching of the Western world languages moved towards the *Communicative Language Teaching* (CLT) or *Communicative Approach* proposed by British applied linguists (e.g. Widdowson, 1972, 1978; Wilkins, 1972, 1976), some aspects of this learner-centered approach were observed to be infused in the teaching of Chinese language as a second language.

The key objective of CLT was to develop communicative competence in learners through learner-centered methods. The teacher's role in CLT was to help motivate the learners as they learnt through trial and error during their communication practices. Parallels of these objectives can be drawn from the objectives of teaching Chinese language stated in the Chinese Language Syllabus – Secondary document (Ministry of Education, 2002). However, based on my personal experience, it was not uncommon to observe a teacher in a Singapore

Chinese Language classroom combining methods from the Communicative Approach and the Situational Language Teaching. This stemmed from the tradition of the Chinese classroom being usually a teacher-centered one, a tradition which is fairly entrenched (刘珣、田善继、冯惟钢，1997). In such a typical classroom, the teacher is the main person who is talking most of the time. Students are expected to sit and listen passively to the lesson and learn. Often, the learning that takes place is rote learning. Students are seldom involved in activities that allow them to construct their own knowledge. The teaching approach adopted in this study, which will be described in Chapter 3, can be seen as an attempt to move away from this teacher-centered tradition.

Among the four language skills, teaching students how to speak is important as speaking is a fundamental form of language (吕必松, 2006). I first looked at how speaking is taught in classrooms in China. 谢嘉平、赵玉琦、王俊英(2002) recommended the use of picture conversation as a method for teaching speaking. They believed that students' participation in picture conversations can expand the students' vocabulary. In addition, they believed that the use of this strategy would lead to improvement in both students' cognitive and Chinese language speaking ability. Students would become systematic, coherent and stay focused while speaking.

Another method, *Kou Yu Jiao Ji* (口语交际), which involved students spontaneously expressing their opinions on selected topics and exchanging views and comments during classroom lessons, was advocated by many practitioners and researchers (e.g. 蒋金镯, 2004; 李明洁, 2005; 潘涌, 2004; 孙云凤, 2005; 王春艳, 2004; 王娟 2004; 张永林, 2004; 周志芳, 2005). Kou Yu Jiao Ji aims to develop in

students the ability to speak spontaneously with confidence under different circumstances and to different audiences (蒋金镯, 2004). 臧公管、王德敏(2004) emphasised the importance of teachers taking a backseat and allowing peer interactions during Kou Yu Jiao Ji. 潘涌(2004) pointed out that students can benefit from Kou Yu Jiao Ji in three areas: speaking, listening and ability to respond in an interaction; 张永林(2004) suggested that students will not only improve in speaking, their knowledge and awareness of the environment may also increase as students prepare themselves for Kou Yu Jiao Ji lessons. Applying the lens of language teaching approach described in the earlier paragraphs, Kou Yu Jiao Ji, as implemented in classrooms in China, is a learner-centered approach based on the Communicative Approach described earlier.

Back in the Singapore classrooms, Chinese Language teachers taught using suggested activities for speaking instructions found in the Chinese Language Syllabus – Secondary document (Ministry of Education, 2002, p.37-40). These activities include:

- To repeat the content of a piece of recording after listening to it

- To make predictions and speak about the outcomes of a story that has only been half-told

- To express one's feeling after listening to recorded songs and narrations

- To tell a story about a picture, or picture conversation

- To co-construct and tell a story as a class by soliciting inputs from all the students in the class

- To assume the role of characters in a story and enact scenes while improvising the dialogue in the role

- To read aloud a passage with feelings and intonations

- To conduct debate sessions on selected topics

Contrasting these activities with the strongly advocated Kou Yu Jiao Ji method in mainland China, the communicative element is present but the majority of these suggested activities appeared to be focusing more on the individual's performance of speaking tasks. The activity "Spontaneous Speaking on a General Topic" chosen in this study was an attempt to bridge the objectives of Chinese Language speaking instructions (Ministry of Education, 2002) with the approach of the Communicative Approach and Kou Yu Jiao Ji while developing individual students' competence. The approach used in the treatment aims to let the teacher take a backseat to allow more student-centered learning to take place. This was achieved through the inclusion of a metacognitive approach and the use of ICT to be described in the following sections.

2.3 Metacognition, Language Teaching and Teaching Speaking

In another attempt to move the Chinese Language classroom towards being more student-centered, metacognition was reviewed for its suitability. The study of 'metacognition' was pioneered by John Flavell, who described metacognition as "knowledge and cognition about cognitive phenomena" (Flavell, 1979, p. 906). It was through metacognition that one monitored his/her own cognitive processes (Flavell, 1979, 1985), and developed awareness of what others were thinking or feeling (Flavell, 1987). Metacognition consisted of four components: "(a) metacognitive knowledge, (b) metacognitive experiences, (c) goals (or tasks), and

(d) actions (or strategies)" (Flavell, 1979, p. 906). Applying a different set of lens, Brown (1987) identified two related dimensions in metacognition: (a) knowledge of cognition, and (b) regulation of cognition. Likewise, Leahey and Harris, (1997, p. 221) refers to metacognition as the "knowledge, awareness, and monitoring of one's cognitions". Often, metacognition was also defined as 'thinking about thinking', which was classified as higher-order thinking (Livingston, 1997). Through metacognition, learners understand their individual cognitive processes and are able to manipulate these processes (Paris, Cross, & Libson, 1984; Hyde & Bizar, 1989). In essence, metacognition involved self-reflection directed by one (Goh & Zhang, 2002). Through reflection on language learning processes, a learner can possibly develop metacognitive awareness to become more effective in his/her language learning (Scholfield, 1995).

To bridge language learning and metacognition, Wenden (1991) adopted Flavell's (1979) categorization of *metacognitive knowledge* (namely person knowledge, task knowledge, strategic knowledge) in her discussion of methods to develop autonomous language learners. Wenden (1991, pp. 35-45) referred *person knowledge* to the general understanding of how learning takes place and how factors such as age, aptitude, motivation, cognitive and learning style can affect language learning. From a language learner's perspective, person knowledge can be extended to include knowledge on how various factors are affecting oneself during language learning. *Task knowledge* refers to the understanding of procedures that are required to ensure successful completion of a language task. Task knowledge may include the purpose, the nature, the difficulty level and the demands of the language task. *Strategic knowledge* refers to knowledge on language learning strategies acquired and stored by a language learner. The two types of strategic

knowledge include (1) knowing the effective strategies that will lead to completion of specific language tasks, and (2) general knowledge about language learning that serves as guidance to the choice of strategies.

In addition to the three categories of metacognitive knowledge, language learners also engage in processes to monitor their language task performance. These monitoring processes are referred to as *self-appraisal* and *self-management* by Paris and Winograd (1990). As Hacker (1998) noted, "self-appraisals are people's personal reflections about their knowledge states and abilities, and their affection states concerning their knowledge, abilities, motivation, and characteristics as learners" (pp. 10-11). It was believed that through this reflection process, language learners can learn more about themselves as they performed in language tasks. Self-management on the other hand puts "metacognition in action" (Paris & Winograd, p. 18) and this can take place when learners (1) plan their approach prior to carrying out a learning task at hand, (2) make adjustments as they carry out the task, and (3) make modifications to existing approach for future language tasks.

Where speaking is concerned, there appears to be few empirical studies that link metacognitive knowledge to the learning of speaking. Zhang and Goh (2006) studied the relationship between students' metacognitive awareness of speaking and strategy knowledge; Nakatani (2005) investigated the relationship between metacognitive awareness-raising training and oral communication strategy use; Vitanova and Miller (2002) gained insights about pronunciation training through students reflecting upon their learning experiences; Kaderavek et al. (2004) explored the relationship between narrative production and children's self-assessment of their oral performances. As Nakatani (2005) noted of the limited

research, existing findings were generally positive in that learners benefited and improved when metacognitive strategies were introduced in the training. As existing research tends to focus on cognitive strategy applications and languages of the Western world, this study attempts to study the effect of incorporating metacognitive strategies for the teaching of Chinese language speaking by adopting an existing framework.

This study adopts Goh and Zhang (2002)'s framework to study how students make use of their metacognitive knowledge when they monitor their past Chinese Language oral performances and plan for future speaking tasks. Combining Wenden's (1991) classifications of metacognitive knowledge, and Paris and Winograd's (1990) descriptions of the monitoring process in metacognition, Goh and Zhang (2002) developed the metacognitive strategies framework based on positive findings in their studies on listening and speaking (e.g. Goh, 1997; Goh & Liu, 1999; Zhang, 2001). In this framework, language learners are involved in self-appraisal and self-management through three processes: *planning, monitoring and evaluating* of their language tasks. The language learners will need to use their metacognitive knowledge of the language tasks whenever they are planning, monitoring or evaluating. In this study, a list of questions is crafted to scaffold students in the metacognitive processes (to be described in greater detail in Chapter 3).

2.4 Use of Computers To Assist Language Teaching and Teaching of Speaking

For the teaching of languages in the Western world, the field of study on the use of computers and computing devices to assist in language learning is known as Computer-Assisted Language Learning, or *CALL*. Early English language

practitioners had coined the acronym CALL from Computer-Assisted Language Learning and it was Levy (1997, p. 1) who first defined CALL as "the search for and study of applications on the computer in language teaching and learning". For the teaching of Chinese language, 张普 (1991) suggested how computers could provide assistance to teaching Chinese through the development of technologies such as keyboard input methods, automated character recognition, translation, and a Chinese language corpus. He further proposed the development and use of Chinese Computer-Aided Instruction system (CCAI) to harness the potential of the audio and visual capabilities of computers to bring about the development of the four language skills. With the development of multimedia capabilities in computers and the internet, 郑艳群 (1995) also discussed the potential of these developments for the teaching of Chinese language, in what she coined Multimedia Chinese Computer-Assisted Instruction (MCCAI).

Reviewing the development of CALL since the 1960s till May 2007, I observed that the use of CALL was closely related to the development of the language teaching methods in the Western world. According to Kern and Warschauer (2000), CALL was mainly used for drill and practice during the 1960s to 1970s which served the then prevalent Audiolingual teaching methods. CALL later changed to meet the needs of the Communicative Approach in the 1980s. The latest developments attempted to integrate the multimodal representation (e.g. graphics, sounds, animations) offered by the World Wide Web to bring about students' meaning making through social interaction, what Kern and Warschauer (2000) coined as *integrative CALL*. The Vygotskian sociocultural model of language learning served as the theoretical foundation for integrative CALL (Fotos & Browne, 2004). Integrative CALL further advanced communicative competence

by shifting the use of ICT from a teacher-centered approach to a student-centered approach.

Contrasting the development of CALL for the teaching of Western world languages and MCCAI for Chinese language, CALL has moved far ahead of MCCAI in terms of research and practice. Although researchers on Chinese language began their discussions of CCAI or MCCAI since the 1990s, this field is still relatively exploratory and widespread usage of ICT for the teaching of CL learning has not been observed (郑艳群, 2006). This may be due to the perceptions and beliefs among Chinese language teachers concerning the use of ICT. Some Chinese language educators perceived that the main function of ICT was to motivate learners and allow them convenient and efficient access to a wide range of Chinese resources (余彤辉, 2004). There were Chinese language teachers who believed that the use of traditional resources (e.g. paper, pen and book) was sufficient to ensure quality teaching. In their opinion, the use of technology did not offer additional benefits for Chinese language learning (余彤辉, 2004). Other Chinese language teachers feared that the use of multimedia to represent the meaning of written text might impose a singular visualization in the learners' minds, reducing and limiting the need for learners to make their own visualizations of the written text (李明珠, 2004).

The prevalent use of ICT in Chinese language classrooms consequently supported a didactic mode of teaching (陈钟樑, 2004). Many teachers used multimedia lesson resources as an adjunct to the blackboard during lessons. For example, projected pictures and background music were used to enhance the appreciation of text passages being read. ICT was not directly used by the students

in their learning. The exploration of ICT to enhance students' interaction during the learning of Chinese was minimal (陈钟樑, 2004). In view of the current situation, this study aims to generate ideas for a student-centered approach to the teaching of Chinese language by reviewing the developments in CALL.

Recent development of CALL served to complement the needs of the Communicative Approach of language teaching. According to Kern and Warschauer (2000), some Western researchers studied the use of interaction tools such as email (e.g. Young, 2003), discussion forum (e.g. Yildiz & Barbara, 2003), Internet Relay Chat (e.g. Paolillo, 2001), computer conferencing systems (e.g. Coffin & Hewings, 2005; Rosell-Aguilar, 2005), and instant messaging (e.g. Segerstad & Ljungstrand, 2002; Herring, 2004) for the teaching of Western languages. These tools are also classified as computer-mediated communication (CMC) tools and are often used to promote reading and writing. The technological tool chosen in this study is weblog, which belongs to one of the latest CMC tools.

For a long period in the history of CALL development, there existed little research in the use of CALL for speaking skills development (Barr, Leakry & Ranchoux, 2005; Chun & Plass, 2000; Wang, 2004). However, a number of researchers found positive links between a CALL environment and students' oral competency. Some researchers (e.g. Jeon-Ellis, Debski & Wigglesworth, 2005; Payne & Ross, 2005) attempted to combine CMC applications with face-to-face interactions to develop speaking skills. In the learners' use of CMC applications to perform speaking tasks, Barr, Leakry & Ranchoux, (2005) reported students improving in their French speaking skills after working in a CALL environment; Volle (2005) observed that learners participated in online Spanish course improved significantly in their oral proficiency scores after they were tasked to record and

send voice emails; Wang (2004) experimented with desktop videoconferencing systems to study the effect of providing oral-visual interaction in distance language education. While attempts have been made to teach speaking with CMC tools, empirical research of weblogs as a CMC tool to facilitate teaching of speaking is scarce. In the next section, the potentials for weblogs are discussed.

2.5 Weblogs and Audioblogs

The term weblogs, or now commonly known as "blogs", was coined by Jorn Barger in 1997. "Blog", truncated from the word "weblog", was most often used to refer to an online journal or diary (Nardi, Schiano, Gumbrecht, & Swartz, 2004). A typical blog is a website that contains many entries (known as "posts") put up by the author to collectively form an online diary. Similar to its pen-and-paper form, these online diaries contain posts that are reflective in nature (Oravec, 2003). Audioblog is an extension of a blog, where bloggers substitute the bulk of the text posts with voice recordings (The Guardian, 2004). It inherited every aspects of blog; the only difference lies in the use of audio posts versus text posts in a typical blog.

Blogs have some distinct features. A defining feature of a blog is that the posts are arranged in reverse chronological order, with the most recent entry appearing at the beginning of the blog (Paquet, 2003; Ward, 2004). Entries in a blog are often made up of text, hyperlinks, pictures and/or graphics for the expression of meanings by the author. Although most blogs belong to individuals, they are in fact public diaries. Bloggers (refers to people who own blogs) can read one another's blogs, link to them, and give feedback to fellow bloggers (Huffaker, 2004).

The "comments" feature of a blog is what sets blogs apart from a normal website. Through it, visitors to a blog can establish communication with the author by leaving comments for the posts that they have read. The author may choose to post a comment in reply and a discussion between the author and his/her readers may thus begin (Flatley, 2005).

Blog, a generic technological tool, has been adapted for use in an education setting (Fujiuchi, 2006). The use of blogs in education was grounded in Vygotsky's theory of social meaning making (Ferdig & Trammell, 2004). Blogs offer the opportunity for learners to express their thoughts through the use of language. As blogs can be read and accessed by others, these thoughts in the social plane can possibly be appropriated by the larger community. Negotiation of meaning can thus take place through the exchange of comments and blog posts (Krause, 2005; Richardson, 2005a). It was observed that blogging activities instilled in students the motivation to write more to express themselves (Downes, 2004) and gave them ownership over their work (Kennedy, 2003; Tan et. al., 2005).

Although in-depth research on the effectiveness of blogging for teaching and learning appears limited, educators worldwide have tried and recommended blogging activities for the teaching of reading (Huffaker, 2004), writing (Downes, 2004; Eastment, 2005; Harris, 2006; Kennedy, 2003; Youse et al., 2005), music (Chong & Soo, 2005), and the fostering of learners' communities (Oravec, 2003; Richardson, 2005b). The use of blogs to teach speaking has not been studied. This study attempts to fill this gap by studying the use of audioblogs for the teaching of speaking.

Chapter 3 Method

3.1 Chapter Overview

In this chapter, the participants, treatment and procedures of the study are described. Following that, discussion of the assessment of the learning outcome for each of the three research questions is carried out.

3.2 Participants

The study was conducted in a government co-educational secondary school (Grade 7-10). The participants of this study were selected among the five classes of secondary two express stream students, aged 13 to 14, who are studying Chinese Language. Students studying Higher Chinese Language were excluded as these students have higher Chinese language ability and do not represent the majority of secondary students in Singapore. Random selection was conducted to choose 35 students out of a total population of 158 students. Before the study started, 10 students asked to withdraw from the study, stating various reasons. The study was carried out with the remaining 25 student participants. These 13 girls and 12 boys were deemed as representative of the population as they still reflected the gender ratio of the original population of 158 students.

The participants were initially randomly assigned into groups of five. Four weeks into the study, the students were re-assigned into groups of three (with an exception of one group of four) to allow students to maximise each individuals' interaction opportunity in their online interactions efforts. For students who were interacting well with each other online, their groupings remained. For students who were not interacting online, I tried to assign them so that students that appeared to interact well face-to-face during lessons were in the same group.

3.3 Treatment

The implementation of this study lasted for two months, from July 2006 to September 2006. A pretest was conducted for the students prior to the treatment in July 2006 to ascertain the students' level of oral proficiency. For the pretest, students were required to speak on a given topic (see Table 3.1) and each student was provided with an mp3 player-cum-recorder to record their individual oral performance. These oral performances were graded by three Chinese Language teachers who had been appointed examiners for the GCE 'O' Level oral examinations by the Ministry of Education. They were thus very familiar with the requirements of the national examination. The teachers graded the recordings individually and the students' identities were not revealed to these teachers.

The length of the entire treatment lasted eight weeks. Eight 1-hour lessons were conducted on Friday afternoons after curriculum time. The very first lesson had two objectives. Firstly, the students were introduced to lessons on speaking that involves self-appraisal through the use of audioblogs. Secondly, students were familiarised with the operations of the audioblog platform. Each student was provided with a portable *mp3* player-and-recorder and a personal audioblog account to which they could upload their recorded oral performances. The standard *mp3* refers to MPEG-1 Audio Layer 3, which is a popular audio encoding format. MPEG-1 defines a group of Audio and Video (AV) coding and compression standards agreed upon by the Moving Picture Experts Group (MPEG).

Figure 3.1 shows an example of a student's audioblog used in the study and Figure 3.2 shows the user interface of an audioblog used by a student to create a new audioblog post.

Figure 3.1 Example of a student's audioblog
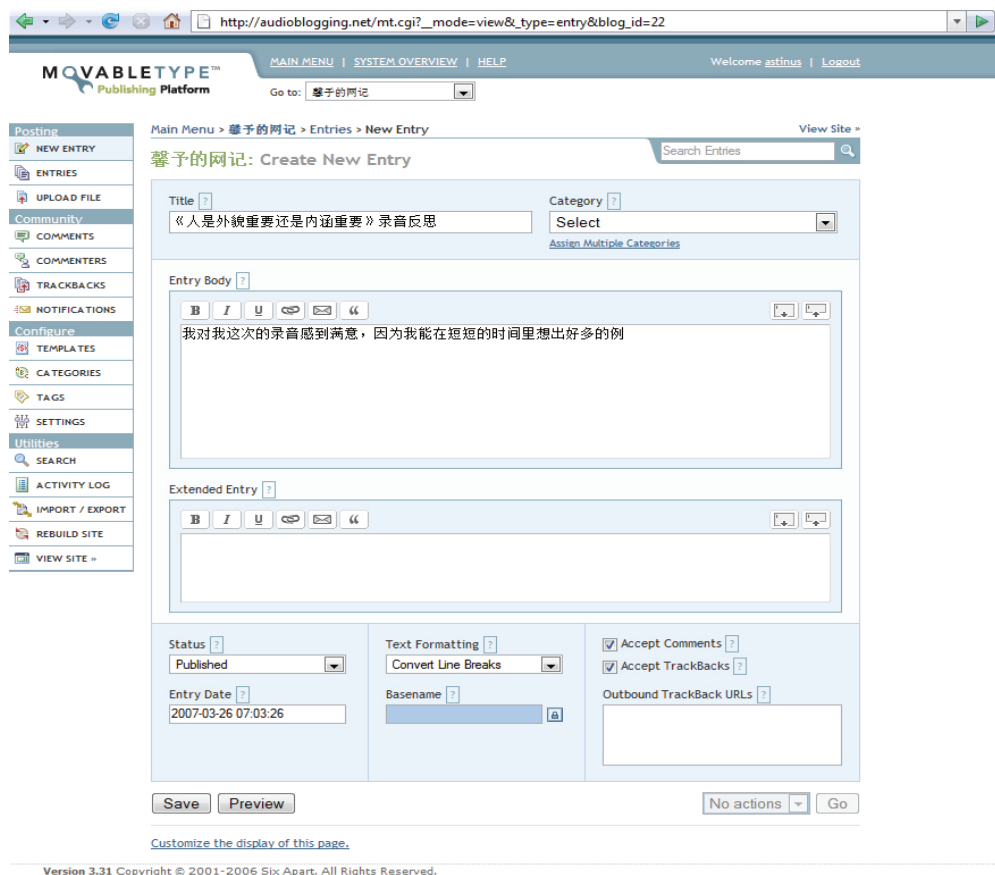
Figure 3.2 User interface of a student's audioblog

In this study, audioblogs served three primary functions. Firstly, the audioblog platform served as a channel through which students can upload their recorded oral performances and share them with their peers. Secondly, the blog posts captured student's self-reflection. Through posting to their individual blogs, students reflected upon their completed speaking tasks and shared these reflections with their peers. Thirdly, the comments feature of blogs enabled the students to exchange comments with their peers after listening to the peers' speaking performances (Figure 3.3). These comments by peers also served as part of the content and may be included in their reflections. Comments provided by peers can potentially help students develop greater awareness of their own speaking performance.

Figure 3.3 Exchange of comments on a student's audioblog post

During the treatment, students carried out a cycle of activities as follows:

1. Record an oral performance on a given topic

2. Listen and comment on peers' oral performances

3. Read comments provided by peers

4. Perform self-appraisal of oral performance

5. Carry out a second recording based on the same topic in (1)

For the recording of oral performance, students were given topics modelled after topics that appeared in the GCE 'O' Level Chinese Language examinations. These topics were related to social and teenage issues. The topics which students were asked to perform oral recordings on are listed in Table 3.1.

Table 3.1

Topics given to students for oral performance

Week	Topic title
0 (Pretest)	《青少年购买名牌货》 [Teenagers buying *branded goods*]
1	《校园恶霸》 [*Bully*ing in school]
2	《压力》 [*Pressure* faced by teenagers]
3	《师生关系》 [*Teacher-student* relationship]
4 and 5	《新加坡人有礼貌吗?》 [Do Singaporeans display *courtesy*?]
6	《外貌还是内涵比较重要?》 [Which is more important, *appearance* or mannerism?]
7	《青少年离家出走》 [Teenagers *running away* from home]

Week	Topic title
8	《青少年沉迷于网上游戏》 [Youth's addiction to internet/online *gaming*]
9 (Posttest)	《青少年谈恋爱》 [Engaging in a *boy-girl relationship*]

Note. Italicised words are used as a short-form to refer to the topic title in subsequent sections.

For each topic, the students were given some background knowledge of the issue concerned through either reading newspaper reports or watching television documentaries. When the students performed their oral recordings, they assumed that they were speaking on the topic to an audience where no interaction with the audience was needed. Following the uploading of their individual recordings, the students were tasked to visit the audioblogs of their group members. They were required to listen to the recordings and provide comments typewritten in Chinese on the oral performance that they had heard. The assessment criteria presented in Table 3.2 were adapted from the assessment rubrics used in the GCE O-level Chinese Language examinations. The rubrics represented an elaboration of the key areas that an oral examiner expected of a student's oral speaking in an oral examination. A list of sentence opening designed based on Bloom's taxonomy (1961) in the form of a printed handout was provided as scaffolds for the students to think critically when providing comments to their peers' recordings (see Table 3.3). Bloom's taxonomy was chosen as the students have learnt about the different types of thinking skills as part of the school curriculum.

Table 3.2

Assessment criteria for students to listen to oral performance and to

provide comments

评分标准 Assessment Criteria	说明 Elaborations
内容 [Content]	全面性 — 从多方面、多角度探讨问题 [Breadth - to discuss an issue from different perspectives] 详尽程度 — 各方面的内容有超过一个重点 [Elaboration/Depth- to provide and illustrate with more than one idea] 合理性 — 论点合逻辑、有道理 [Logic - to provide logical arguments] 原创性 — 能表达自己的看法 [Originality - to provide one's own point of view] 条理性 — 能有组织地说出自己的看法 [Organisation- to organize ideas in an orderly manner]
表达 [Expression]	表达流畅 — 很少停顿或重复，显得有信心否 [Fluency – to speak with few pauses or repeated words and demonstrate confidence] 词汇丰富 — 能使用生词或成语 [Vocabulary – to use difficult terms or idioms] 语音标准 — 是否有听不懂的词语 [Pronunciation – to pronounce the words correctly] 语调有起伏 — 是否有配合感情 [Intonation – to speak with the relevant tone and pitch]

Note. The table provided to students was without the English translations.

Table 3.3

Sentence openings that scaffold students in different types of comments

based on Bloom's taxonomy

评语类别 Types of comment	句子范例 Sentence openings	Bloom's taxonomy
比较 [Compare]	1. A 的录音比 B 的录音好，因 为…… [A's recording is better than B's recording because …] • A 列出了三个原因重点，而 B 只讲了一个。 [A listed three reasons and B gave only one.] • A 提到了两个解决事情的方 法，而 B 只讲了一个。 [A suggested two solutions to the problem and B gave only one.] • …… 2. 和 A 比起来，B 的内容不够全 面，例如……	Comprehension, Analysis

评语类别 Types of comment	句子范例 Sentence openings	Bloom's taxonomy
	[In comparison with A, B's is less encompassing, lacking …] ● A 说明了 XX 是什么，而 B 却漏掉了。 [A gave the details of XX, and B did not.] ● A 说明了 XX 的好处/坏处，而 B 却没有说明。 [A spoke about the advantages /disadvantages of XX, but B did not.] ● ……	
评估 [Evaluate in general]	1. 我喜欢 A 的录音因为他…… [I like A's recording because …] ● 语音标准…… [pronunciation is accurate ...] ● 内容充足…… [content is substantial …] ● 说话带起伏、有感情…… [Tones change reflected the emotion …] ● ……	Analysis, Evaluation

评语类别 Types of comment	句子范例 Sentence openings	Bloom's taxonomy
批评 [Critique in particular]	1. 我觉得/认为…… [I feel/think that …] ● A 使用了太多英语词汇…… [A has used too many English terms …] ● A 用错了"僧多粥少"这个 成语…… [A has used this idiom incorrectly …] ● A 的停顿太多了…… [A paused too often in his/her reading …] ● A 说话时太小声/太模糊 了…… [A's recording can hardly be heard …] ● ……	Analysis
建议	1. 我觉得/认为……	Application,

评语类别 Types of comment	句子范例 Sentence openings	Bloom's taxonomy
[Suggest]	[I feel that …] ● A 应该对自己更有信心，尝试讲长一些，尽量少用英语。 [A should have more confidence in him/herself, s/he should use longer sentences, use fewer English terms …] ● A 说话时的语气应该多一些起伏。 [A should work on his/her intonation …] ● ……	Analysis

Note. The table provided to students was without the English translations except for "Bloom's taxonomy" which they were familiar with.

After the students had exchanged comments, they were required to perform a self-appraisal of their oral performances. A list of sentence openings designed based on Goh and Zhang (2001)'s metacognitive framework (see Table 3.4) was provided in the form of a printed handout. The students were tasked to reflect on

the four areas listed in the table. They were not specifically told that metacognition

was involved in the reflection process they were going through. After the reflection,

students were required to immediately perform an oral recording on the same topic

and upload it to their audioblogs.

Table 3.4

Sentence openings that scaffold students in their self-appraisal using different metacognitive strategies

评语类别 Types of comment	句子范例 Sentence openings	Types of Metacognitive Strategy
自我评估 [Self-examining]	1. 我对我自己的录音很满意，因为…… [I'm satisfied with my recording because …] 2. 我这一次有进步，因为…… [I have made improvements because …]	Evaluating, monitoring
比较评估 [Examining through comparison]	1. 和某某同学比较，我在内容上…… [In comparison with my friend A, my content is …] 2. 和我上一次的录音比较，这次我……	Evaluating, monitoring

评语类别 Types of comment	句子范例 Sentence openings	Types of Metacognitive Strategy
	[In comparison with my previous recordings, this time I …]	
谋求进步 [Planning for improvement]	1．下次录音时，我的目标是…… [My targets for the next recording are …] 2．下次，我应该尝试…… [I'll try to … the next time…] 3．下次，我要在某某方面用功…… [In my next practice, I want to work on (some specific areas) …]	Planning
总结经验 [Evaluating received knowledge]	1．我听了同学们的录音后，最大的收获是…… [After listening to my friends' recordings, my greatest takeaway is …]	Evaluating, monitoring

评语类别 Types of comment	句子范例 Sentence openings	Types of Metacognitive Strategy
	2．我看了同学们的评论后， 最大的收获是⋯⋯ [After reading the comments given by my friends, my greatest takeaway is …] 3．这次的经验让我明白 了⋯⋯ [In this cycle of practice, I learnt …]	

Note. The table provided to students was without the English translations and the last column on "Types of metacognitive strategy".

The cycle of activities described above were what the students were required to complete in a week. In the following face-to-face lesson, the teacher checked whether the students had carried out their assigned learning activities during the past week. Some students' reflections were highlighted to encourage students to learn from their peers how ideas can be represented in their self-appraisal. This was followed by the introduction of a new topic for their next speaking task.

The weekly cycle of activities was repeated for eight weeks (except in week 4 and 5 when the students had to spend more time to prepare for their continual assessment tests, the one-week activity was extended to two weeks). In the ninth week, a posttest was performed using the exact procedure as the pretest except the students were required to speak on a new given topic. The topic used during the pretest was not reused for the posttest as research (e.g. Bygate, 1996, 2001, 2005) had shown that repeating the same speaking task yielded better performance. The pretest and posttest topic were of similar level of difficulty as both topics were chosen after consulting the three Chinese Language teachers.

When the posttest was completed, it marked the end of the entire treatment. The oral performances in the posttest were also graded by the three experienced oral examiners. As per grading of the pretest recordings, the teachers did not know which students' oral performances they were grading.

3.4 Assessment of Learning Outcomes

3.4.1   *Answering Research Question One – "Does the treatment of audioblogging*
         followed by peer critique and self-appraisal lead to an improvement in the
         Chinese language speaking skill?"

To answer the first research question, inferential statistics were used to test the significance of the difference in the average mean scores for the pretest oral performance and the posttest oral performance. Since the sample size is small, the pretest-posttest mean scores were compared using the Wilcoxon test (non-parametric). For statistical significance, alpha level of .02 was adopted.

The scores for the pretest and posttest oral performance were obtained by the assessment of these recorded performances by the three Chinese Language

teachers who had been appointed GCE 'O' level oral examiners. All three teachers listened to and graded all the recorded performances individually.

The voice recordings in the individual audioblogs for each student include the pretest recording, the posttest recording, the first and the second recordings for each week's given topic. During the assessment by the three teachers, the voice recordings by different students were arranged on a CD in a random order. The recordings were grouped according to the topic. The teachers awarded marks based on the rubrics adapted from the oral examiner's rubrics for the GCE 'O' level Chinese Language oral examinations (see Table 3.5). All three teachers listened to the weekly recordings and graded all the recorded performances individually.

The GCE 'O' level rubrics were adopted for two main reasons. Firstly, the GCE 'O' level rubrics prescribed a standard for oral performances. This set of rubrics had been used for many years by the Ministry of Education. Secondly, the GCE 'O' level rubrics served as a guide for both teaching and learning of speaking. Based on the rubrics, I was able to align the classroom instructions with the expectations of the curriculum. On the other hand, the participants were not unfamiliar with the rubrics though they may come from different classes taught by different Chinese Language teachers. The instructions they received in the past were similarly based on the understanding of the GCE 'O' level rubrics.

Table 3.5

Assessment rubrics for students' oral performances

(A) 叙述的内容（15分） [Content (15 marks)]		
等级	分数	说明
上	13 – 15	讲述详尽清楚，而且有条理
中上	10 – 12	讲述还算清楚，有条理，但不够详尽
中	7 – 9	讲述大致清楚，但不详尽
中下	4 – 6	只能发表一些意见，调理紊乱
下	1 – 3	无法讲述意见，显得没有头绪

(B) 表达能力（15分） [Expression (15 marks)]		
等级	分数	说明
上	13 – 15	用词适当，说话自然流利
中上	10 – 12	说话还算流利，能表情达意，很少迟疑
中	7 – 9	说话大致流利，但有时会迟疑，有语病
中下	4 – 6	说话经常迟疑，有许多语病
下	1 – 3	说话不流畅，无法表达意见

As outlined in Table 3.5, the teachers gave marks based on two assessment areas, namely content and expression. For content, the teachers observed if the ideas in the oral performance were expressed in an orderly manner. They also considered the quantity and comprehensiveness of the ideas expressed. For expression, the teachers observed the level of fluency of the oral performances. They also looked out for grammatical errors and appropriateness of the terms and words students used to express their ideas.

Cronbach's (1951) alpha coefficient was computed for the interrater reliability of both the pretest scores and posttest scores. The Cronbach's alpha coefficient provides a good estimate of whether the scores given by the three teachers were consistent and reliable (Stemler, 2004).

3.4.2 Answering Research Question Two – "What kinds of metacognitive behaviours are exhibited in the self-appraisal and peer critique of students' speaking tasks?"

To answer the second research question, content analysis typical of those used with qualitative data (Guba & Lincoln, 1981; Miles & Huberman, 1984) was carried out. The students' individual self-appraisal, the comments they provided to their peers, and the comments they received from peers were examined. The data needed were captured as entries in the individual audioblogs.

The categories used for coding *metacognitive strategies* used by the students were based on Goh and Zhang (2001)'s metacognitive framework, namely *planning, monitoring and evaluating*.

The categories used to analyse the *metacognitive knowledge* used by the students that was used were based on Wenden (1991)'s classification of metacognitive knowledge (as described in Chapter 2).

To improve the reliability of the content analysis, the test-retest method was adopted (Fraenkel & Wallen, 2006) to analyse the data twice. After the first round of coding was completed, the data and the analysis results were put aside untouched for two months. I did a second round of coding on the same set of data. The two sets of analysis were compared and in cases where discrepancies were found, I re-examined the data again and decided on the final coding.

3.4.3 Answering Research Question Three – *"In what ways do students revise their oral performances based on their interactions in the Audioblogs environment?"*

To answer the third research question, some students were chosen as case studies. In addition to their individual self-appraisals and the comments they received from peers which were coded for research question two, the students' weekly oral performances were transcribed and examined using content analysis. The oral performances were coded for content and expression. These were the areas that were examined by the Chinese Language teachers for research question one. Hence, it was likely that the students were concerned about the content and expression aspects of their oral performances. If the students were to revise their oral performances, it would likely be reflected in these two areas.

For the purpose of improving the reliability of the content analysis, the test-retest method described in research question two was adopted.

Chapter 4 Results

4.1   Chapter Overview

In this chapter, I present the results according to the three research questions. The analysis is based only on data collected from 7 out of the original sample of 25 students. The data from only 7 students were analysed because they followed through the prescribed activities and completed at least four out of seven cycles of speaking activities in the eight weeks. It was critical to this study for the students to follow the cycle of activities for the treatment's effect to be accounted for. The other 18 students did not complete the weekly cycle of activities. The reasons behind this non-compliance of instructions during the treatment period will be explained in greater detail in the next chapter.

4.2   Research Question One

Does the treatment of audioblogging followed by peer critique and self-appraisal lead to an improvement in the Chinese language speaking skill?

The mean scores awarded by the three testers for both the pretest and the posttest of the 7 students are presented in Figure 4.1. The standardised Cronbach's alpha coefficients for interrater reliability were computed to be .88 for the pretest mean scores, and .79 for the posttest mean scores. This indicated that the interrater scores were reliable (alpha coefficients > .70).

43

Name of student	Meng	Ning	Shing	Ting	Hwee	Yuan	Zen
■ Pretest	13.50	20.00	20.75	20.50	14.00	20.25	12.75
■ Posttest	21.00	26.75	26.25	25.00	24.75	24.75	19.75
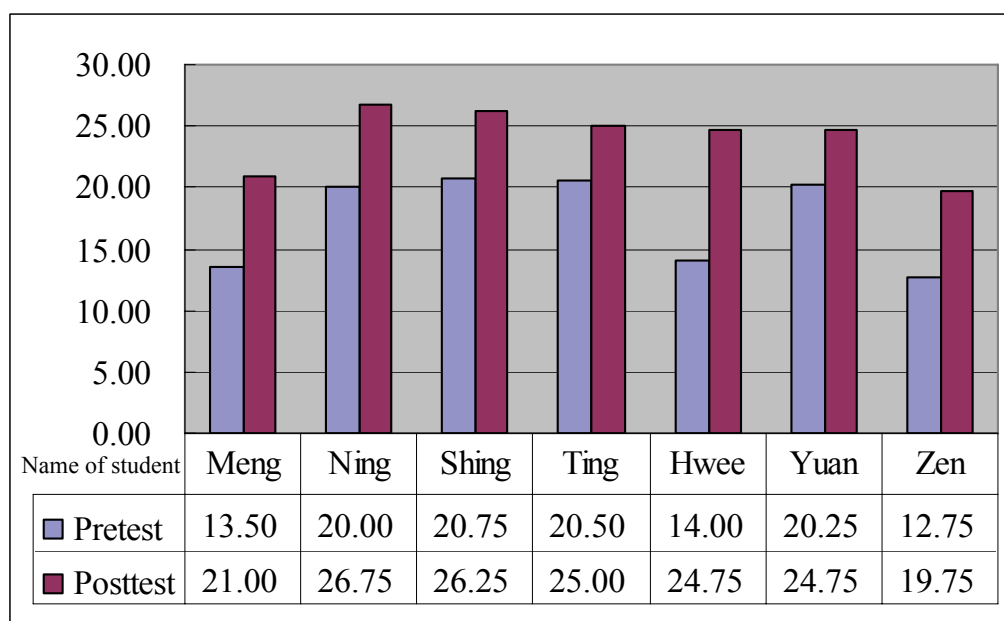
Note. Students' names had been changed to protect confidentiality.

Figure 4.1 Mean scores of pretest-posttest oral performances

Visual inspection of the means scores showed that the students seemed to perform better in the post-test compared to the pre-test. Inferential statistics were used to test the significance of this difference. Since the sample size was small, the pretest-posttest mean scores were compared using Wilcoxon test (non-parametric) as presented in Table 4.1.

Table 4.1

Wilcoxon test for pretest posttest scores on oral performance

Student	X_a (pretest)	X_b (posttest)	X_a-X_b	Signed Ranks of X_a—X_b
Meng	13.50	21.00	-7.5	-6
Ning	20.00	26.75	-6.75	-4
Shing	20.75	26.25	-5.5	-3
Ting	20.50	25.00	-4.5	-1.5
Hwee	14.00	24.75	-10.75	-7
Yuan	20.25	24.75	-4.5	-1.5
Zen	12.75	19.75	-7	-5
			W	-28

Note: Students' names have been changed to protect confidentiality. The Wilcoxon test
was computed using the tool available at
http://faculty.vassar.edu/lowry/VassarStats.html.

Taking W as the sum of the signed ranks, W=-28 for n=7. Using a two-tail

test, it is significant at *p=.02* level.

Based on the computation, the mean scores for the posttest oral

performance had statistically improved when compared to the mean scores for the

pretest oral performance. This result suggests that the treatment may have led to an

improvement in the students' Chinese language speaking skill.

4.3   Research Question Two

What kinds of metacognitive behaviours were exhibited in the self-appraisal and peer critique of their speaking tasks?

4.3.1   Students' Self-Appraisals

A total of 32 pieces of written self-appraisals were collected from the audioblogs of the 7 students. Content analysis was conducted on these self-appraisals to identify the occurrences of metacognitive behaviour. In a statement, one or more metacognitive behaviours may be exhibited. I counted a total of 175 times metacognitive behaviours were exhibited. These metacognitive behaviours were coded in terms of metacognitive strategies (*evaluating, monitoring or planning*) and metacognitive knowledge (*person, task or strategy knowledge*), as explained in the previous chapter.

4.3.1.1 Metacognitive Strategies

The most frequent metacognitive strategy was *monitoring* occurring 105 times, followed by *planning* and *evaluating* occurring 37 and 33 times respectively. Examples of these statements were listed in Table 4.2. The frequency table of how often each of the 7 students made use of each metacognitive strategy can be found in Table 4.3.

Table 4.2

Metacognitive strategies used in students' self-appraisals

Metacognitive strategy used	Examples	Number of times	Percentage
Monitoring	1. 和我上一次比，我还是没有改掉我 SINGLISH 的坏习惯。 2. 在这次的录音里，我的停顿变少了，但我会结结巴巴的。 3. 我听了同学们的录音后，最大的收获是录音时要自然点。	105	60.0%
Planning	1. 下次录音时，我应该在比较适合的时间录音，讲的[得]跟[更]快，也应该讲得有感情。 2. 我在下次的录音也要减少停顿的部分。	37	21.3%

Metacognitive strategy used	Examples	Number of times	Percentage
	3. 我觉得我应该进步在我的停顿上。		
Evaluating	1. 在下次的录音里，我会尝试说多一点成语。 2. 但是，我还是对我这次的录音感到满意，因为我能在短短的时间里想出好多的例子。 3. 我对自己的录音很满意，比以前的更好。	33	18.9%
	Total times:	175	100%

Table 4.3

No. of times students made use of different metacognitive strategies in their self-appraisals

Student	Evaluating	Monitoring	Planning	Total times
Meng	4 (16.0%)	15 (60.0%)	6 (24.0%)	25
Ning	5 (15.2%)	19 (57.5%)	9 (27.3%)	33
Shing	3 (21.4%)	10 (71.4%)	1 (7.1%)	14
Ting	6 (22.2%)	18 (66.7%)	3 (11.1%)	27
Hwee	5 (16.7%)	20 (66.7%)	5 (16.7%)	30
Yuan	5 (23.8%)	8 (38.1%)	8 (38.1%)	21
Zen	5 (20.0%)	15 (60.0%)	5 (20.0%)	25
Total times	33 (18.9%)	105 (60.0%)	37 (21.1%)	175

The breakdowns in the two tables above showed that students invested large amount of effort on monitoring how the individual aspects of their speaking tasks were affecting their performance. In contrast, they invested less effort in evaluating speaking tasks on the whole. The number of times planning statements occurred was also fewer than the number of monitoring statements. This possibly indicated that although students may have reflected upon many aspects of their oral performances, they had chosen to focus on fewer areas when they planned their approach to future speaking tasks.

4.3.1.2 Metacognitive Knowledge

For the type of metacognitive knowledge that was used in the self-appraisals, *task knowledge* was most often exhibited with a total of 151 times. Students did not use

person knowledge and *strategy knowledge* frequently. There were only 10 and 14 times the students used *person knowledge* and *strategy knowledge*. This is illustrated in Table 4.4. The frequency table of how often each of the 7 students made use of the different types of metacognitive knowledge can be found in Table 4.5.

Table 4.4

Metacognitive knowledge used in students' self-appraisals

Metacognitive Knowledge	Examples	Number of times	Percentage
Task knowledge	1. 在这次的录音我少了原因的部分，希望在下次录音我能把它加上。 2. 但是和 Ning 比较，我在内容上比较差。 3. 我觉得我这次的录音做的不错，因为我在过程中停顿的时候已经减少了。	151	86.3%
Person knowledge	1. 可能我平时间讲话太快了，已经成为我的习惯	10	5.7%

Metacognitive Knowledge	Examples	Number of times	Percentage
	了。 2. 可能是我当时的心情很紧张，因为我的外婆叫我做东西，我也很赶时间，所以才没有做到那么好。 3. 因为我录的时候在生病所以我的语调不是很标准。		
Strategy knowledge	1. 在下次的录音里，我会尝试说多一点成语，不要笑和给多一点意见。 2. 下次，我觉得我应该时时[试试]看多讲，把内容多增加。 3. 以后应该不把录音机放	14	8.0%

Metacognitive Knowledge	Examples	Number of times	Percentage
	太緊[近]嘴巴。		
	Total times:	175	100%

Table 4.5

No. of times students made use of different metacognitive knowledge in their self-appraisals

Student	Task knowledge	Person knowledge	Strategy knowledge	Total times
Meng	18 (72.0%)	5 (20.0%)	2 (8.0%)	25
Ning	30 (90.9%)	0 (0.0%)	3 (9.1%)	33
Shing	13 (92.9%)	1 (7.1%)	0 (0.0%)	14
Ting	26 (96.3%)	1 (3.7%)	0 (0.0%)	27
Hwee	23 (76.7%)	2 (6.7%)	5 (16.7%)	30
Yuan	18 (85.7%)	0 (0.0%)	3 (14.3%)	21
Zen	23 (92.0%)	1 (4.0%)	1 (4.0%)	25
Total times	151 (86.3%)	10 (5.7%)	14 (8.0%)	175

The results in Tables 4.4 and 4.5 suggested that the students' reflections focused on the content and their expression during the performance of a speaking task. Students' focus on the content and their expression during reflection about their performance is an indication that students were using task knowledge more

often in their self-appraisals. Students seldom used person knowledge and strategy knowledge in their self-appraisals.

4.3.1.3 The Use of Metacognitive Knowledge for each Metacognitive Strategy

The distribution of the type of metacognitive knowledge used when students apply a metacognitive strategy is shown in Table 4.6. The results in the earlier section appeared to indicate that students often used their task knowledge when they carried out their reflections. Students did not use their person knowledge and strategy knowledge as frequently. To better understand the use of person knowledge and strategy knowledge during self appraisal, I analysed students' use of person knowledge and strategy knowledge across three metacognitive strategies. In the first strategy, monitoring, I observed that the students used person knowledge more often than strategy knowledge. In the second strategy, planning, strategy knowledge was used more often than person knowledge. In the third strategy, evaluating, person knowledge and strategy knowledge were both equally used rarely.

Table 4.6

Metacognitive strategies and the corresponding metacognitive knowledge used in students' self-appraisals

Metacognitive Strategy	Metacognitive knowledge	Number of times	Overall percentage
Monitoring	Person knowledge	7	4.0%
	Task knowledge	94	53.7%
	Strategy knowledge	4	2.3%
Planning	Person knowledge	1	0.6%

Metacognitive Strategy	Metacognitive knowledge	Number of times	Overall percentage
	Task knowledge	27	15.4%
	Strategy knowledge	9	5.1%
Evaluating	Person knowledge	2	1.1%
	Task knowledge	30	17.1%
	Strategy knowledge	1	0.6%
	Total times:	175	100%

4.3.1.4 Sequencing of Metacognitive Strategies

In the 32 pieces of self-appraisals that I analysed, 31 (96.9%) of these began by employing the evaluating strategy. This was always followed by the use of monitoring strategy in all the cases. There was one reflection that began with the monitoring of the oral performance. In this reflection, the evaluation of the speaking task began midway through the reflection.

Students used the planning strategy in 26 out of 32 self-appraisals. In all these cases, the monitoring strategy always preceded the use of the planning strategy. Four of the six pieces of self-appraisals that did not demonstrate the planning strategy occurred in the last cycle of practice. It is possible that since it was the last cycle of practice, the students could have decided to leave out planning for the next speaking task in their reflection. The fifth piece of self-appraisal that did not use the planning strategy occurred in the very first cycle of practice. It is possible that the student may have left out planning as she was not familiar with the scaffolds provided. The last piece of self-appraisal which left out planning occurred

during the fourth cycle of practice. While writing the self-appraisal, the student was sick as noted in her comments.

4.3.2 Students' Peer Critique

In this section, I looked at the comments that the 7 students gave to their peers about their oral performances and the comments they received from their peers. Each comment was made up of one or more statements; the unit of analysis was a statement. I analysed each statement to determine the type of metacognitive knowledge used. As these 7 students belonged to different groups, the number of comments provided and received for each student may be different. The consistency of the group members in carrying out the weekly tasks could have affected the number of comments.

4.3.2.1 Comments Given To Peers

The 7 students made 27 comments. There were 135 times where metacognitive knowledge was used to make the statements found in the comments. Task knowledge was most frequently used with 126 (93.3%) times. Person knowledge and strategy knowledge were much fewer in numbers with 8 (5.9%) and 1 (0.7%) times respectively. The breakdown for the 7 students when they made use of the different types of metacognitive knowledge is listed in Table 4.7.

Table 4.7

No. of times students made use of different areas of metacognitive knowledge when providing comments to peers

Student	Person knowledge	Task knowledge	Strategy knowledge	Total times
Meng	1 (4.8%)	20 (95.2%)	0 (0.0%)	21
Ning	3 (33.3%)	6 (66.7%)	0 (0.0%)	9
Shing	0 (0.0%)	11 (100.0%)	0 (0.0%)	11
Ting	0 (0.0%)	4 (100.0%)	0 (0.0%)	4
Hwee	2 (6.9%)	27 (93.1%)	0 (0.0%)	29
Yuan	0 (0.0%)	26 (96.3%)	1 (3.7%)	27
Zen	2 (5.9%)	32 (94.1%)	0 (0.0%)	34
Total times	8 (5.9%)	126 (93.3%)	1 (0.7%)	135

The results presented above showed that the students used their task knowledge most frequently when they provided comments to their peers. On the few occasions when person knowledge was used, the students took note of their peers as language learners with individual characteristics and provided comments. The use of strategy to critique their peers' speaking task appeared to have eluded the students except in one occasion.

4.3.2.2 Comments Received From Peers

In the 47 pieces of comments received by the 7 students, there were 93 times where metacognitive knowledge was used. In 92 (98.9%) times, task knowledge was used when the comments were provided. Person knowledge was used only 1 (1.1%) time and strategy knowledge was not used at all. The breakdown for the different types of metacognitive knowledge in the comments received from peers is presented in Table 4.8.

Table 4.8

No. of times students received comments from peers that made use of different aspects of metacognitive knowledge

Student	Person knowledge	Task knowledge	Strategy knowledge	Total times
Meng	0 (0.0%)	11 (100.0%)	0 (0.0%)	11
Ning	0 (0.0%)	10 (100.0%)	0 (0.0%)	10
Shing	0 (0.0%)	7 (100.0%)	0 (0.0%)	7
Ting	0 (0.0%)	16 (100.0%)	0 (0.0%)	16
Hwee	1 (5.6%)	17 (94.4%)	0 (0.0%)	18
Yuan	0 (0.0%)	7 (100.0%)	0 (0.0%)	7
Zen	0 (0.0%)	24 (100.0%)	0 (0.0%)	24
Total times	1 (1.1%)	92 (98.9%)	0 (0.0%)	93

The above results were similar in distribution to the results for students' comments to their peers. The peers used their task knowledge most frequently

when they provided comments. The number of times when person knowledge and strategy knowledge were used paled in comparison.

4.3.2.3 Combining Findings For Metacognitive Knowledge

In Figure 4.2, the occurrences for the three types of metacognitive knowledge in the two student learning activities (self-appraisal, peer critique) were combined in a stack graph. As observed, task knowledge formed the core of metacognitive knowledge used by students in the different activities that they were involved in during the treatment.
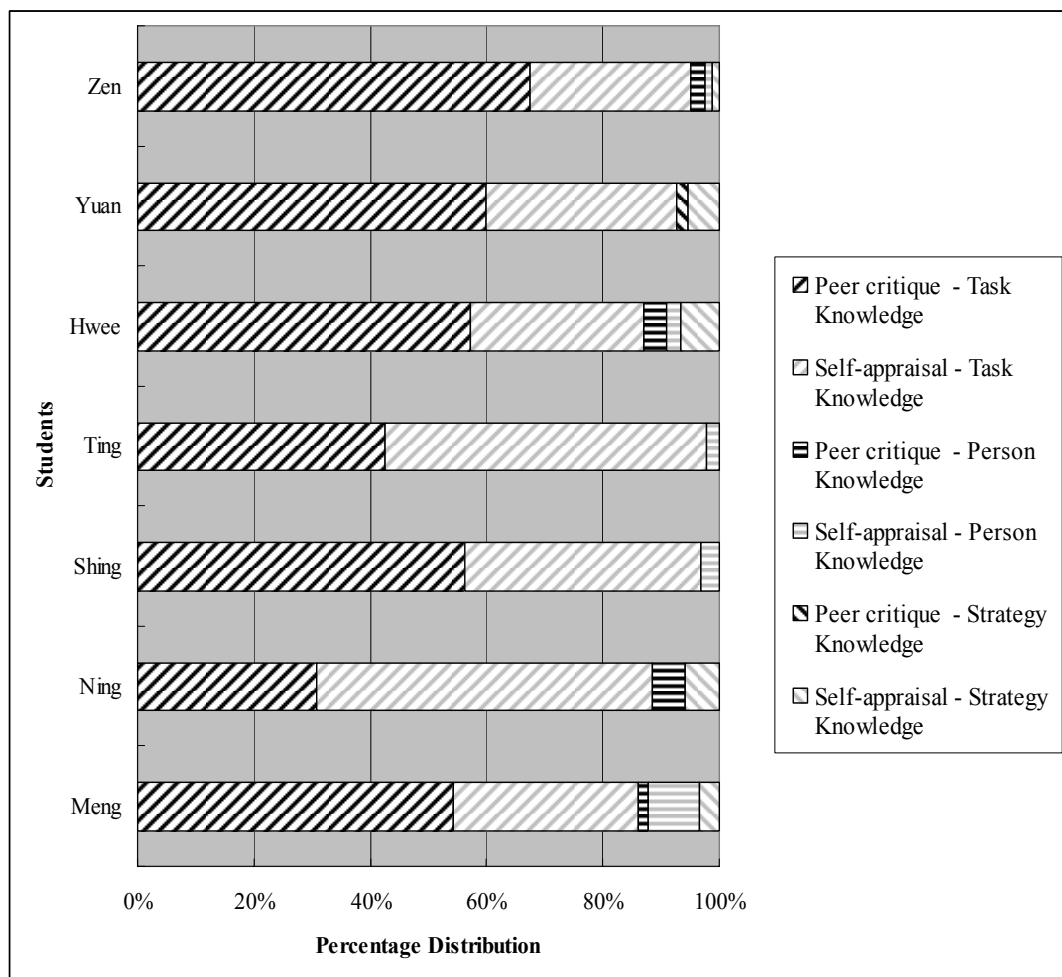
Figure 4.2   Combined occurrences stack graph for types of metacognitive knowledge in self-appraisal and peer critique

4.4   Research Question Three

In what ways do students revise their oral performances based on their interactions in the audioblogs environment?

To answer this question, purposeful sampling was carried out and three students were chosen for in-depth case studies. The three chosen students, Hwee, Meng and Zen, had been most consistent in their work during the treatment and had made the most improvement in the pretest-posttest scores comparison. The reasons for the lack of consistency in the work of the rest of the students will be discussed in greater detail in the next chapter. As described in the previous chapter, the students' interactions included posting of individual oral performances to the audioblogs, exchange of comments on peers' oral performances and self-appraisal of individual oral performance.

4.4.1 Case Study 1: Hwee

4.4.1.1 Language Profile and Overview of Performance

Hwee came from an English-speaking home. She spoke only English at home and used mainly English to communicate with friends in school. Occasionally, Hwee had the opportunity to speak Chinese when her Chinese-speaking friends conversed with her. Hwee belongs to the growing group of Chinese students with English-speaking language environment as mentioned in the Chinese Language Curriculum Pedagogy Review Committee Report 2004 (Ministry of Education, 2004). During the treatment, Hwee completed five out of the seven cycles of practices. The scores which she obtained for her weekly practices are presented in Figure 4.3 (the maximum score was 30 marks for each practice). The average scores were obtained

from three Chinese Language teacher's assessment. The interrater reliability for this set of scores based on standardised Cronbach's alpha was .89.

Topic	Bully	Pressure	Courtesy	Escape	Gaming
■ Attempt 1	15.0	18.0	20.7	20.3	24.0
■ Attempt 2	15.0	18.3	20.7	21.7	22.0
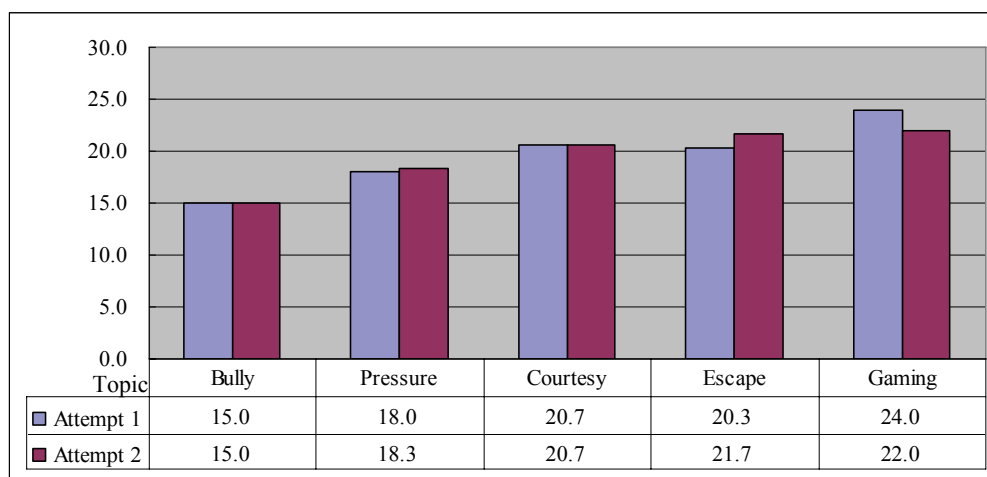
Note. Maximum score for each oral performance is 30.

Figure 4.3 Hwee's scores for weekly oral performances

From the above results, I noticed that Hwee's scores generally increased with each cycle. For the first and third topics, there was no difference in the initial and the second attempts; while in topics two and four, she showed marginal improvement.   In the fifth topic, her first attempt yielded a better score. The length of Hwee's oral performances is presented in Figure 4.4.

Topic	Pretest	Bully	Pressure	Courtesy	Escape	Gaming	Posttest
■ Attempt 1	81	61	74	129	189	320	247
■ Attempt 2		102	105	92	236	242	
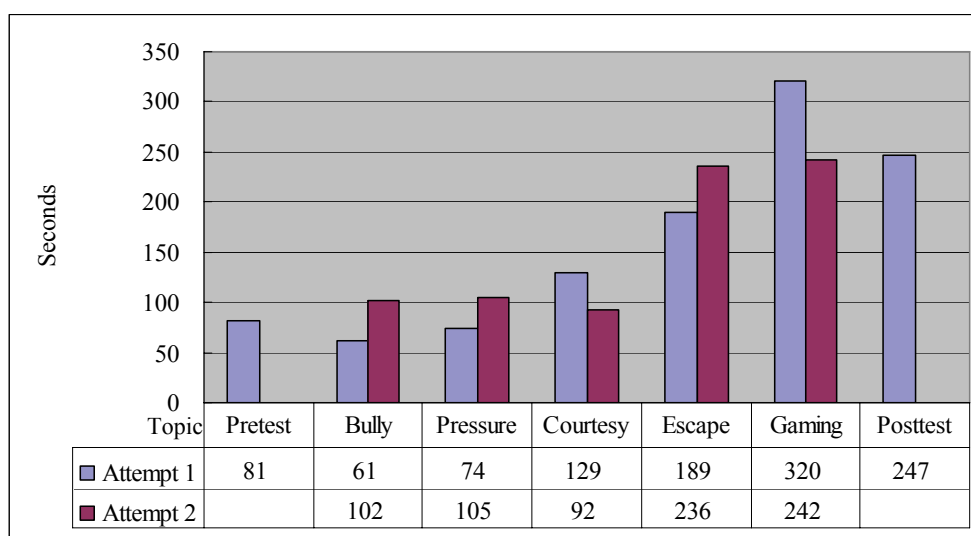
Figure 4.4 Hwee's length of pretest, posttest and weekly oral performances in seconds

The lengths of the recordings generally increased as time proceeded. On three occasions, the second recordings were longer than the first; in the other two occasions, the first recording was longer. The correlation coefficient between the oral performance scores and the length of recording was .82. This indicated a close and positive relationship between the two factors (Fraenkel and Wallen, 2006).

4.4.1.2 Individual Practices

I looked at individual practices and tried to correlate observations from the transcription of the oral performances, the self-appraisal, the comments received from peers and comments given to peers for the particular cycle.

For the 《校园恶霸》 (Bully) practice, Hwee did not receive any comments from her peers. It was noticed that in the second recording, there were noticeably more pauses than the first recording which accounted for the longer length. Hwee also reflected upon her fluency. Using her strategic knowledge, Hwee wrote that she needed to record a few more times so as to make improvement:

"还有，我讲得很不熟悉，所以讲得很困难。当我听到同学们的录音，我觉得他们都讲得比我更熟悉。……我也必须多练几次才录下，这样我就会知道我想讲什么。"

For the voice recordings, students were required to perform the recording once and upload this recording to the audioblogs. This requirement prevented Hwee from repeating the recordings, a strategy derived from her strategy knowledge. It seemed that the inability to arrive at an alternative method for improving fluency from the strategy knowledge could have led Hwee to display the many pauses in the second recording.

In terms of the content of oral performances, ideas from the first recording were repeated in the second recording. Two new ideas were also present in the second recording. This could be a result of hearing and learning from peer's recordings as Hwee put it in her self-appraisal:

"我听了同学们的录音后，最大的收获就是向他们的录音和同学们学讲什么。"

The first recording was most likely done at home as there was no background ambience; the second recording was done in the school compound as the background ambience suggested a school canteen setting. Despite the noisier background, the voice in the second recording turned out to be loud and clear. This reflected Hwee's plan to improve on her volume of speech in her self-appraisal "下次我录音时，我必须更多大声一点。"

For the《压力》(Pressure) practice, once again Hwee did not receive any comments from peers for her first recording. In her self-appraisal, she raised the point that her friend was saying much more in the latter's recording in terms of content and length "我的录音时间比她少，内容上比她差。" Hwee had intended for herself to try and elaborate on the topic in her next recording "下次，我觉得我应该时时[试试]看多讲，把内容多增加。" Indeed, in the second recording, there was an increase in length as well as the scope of ideas presented. The first recording focused on giving a few examples that were related to things happening in school. The second recording expanded the examples to include things happening in both home and school. In addition, Hwee spent some time highlighting some possible consequences and a few methods to overcome pressure in life. The second recording improved in terms of the richness of the content and it appeared that Hwee had indeed tried to say more "[试试]看多讲" as planned.

For the《新加坡人有礼貌吗？》(Courtesy) practice, Hwee received comments from four peers. Most of the comments contained only words of encouragement, for e.g. "继续加油"，"做得很好"；only one student gave comments on her content and expression. The comment urged Hwee to improve on her fluency. Indeed I observed that the first recording contained many pauses that disrupted the overall flow of the oral performance. In comparison, Hwee had made some improvement in terms of fluency in the second recording. What was more interesting to note was that Hwee concluded the second oral performance with the

same idea found in the first recording. This could have been influenced by the peer's comment that Hwee's conclusion was "very relevant and detailed". The act of repeating the same idea for conclusion was not observed in the previous two cycles when Hwee received no comments from her peers. As I reviewed Hwee's self-appraisal, she was concerned about not making much improvement and planned to improve her content. If I were to compare the two recordings, the second recording was slightly more in-depth as Hwee spoke about three reasons behind the phenomenon and proposed a solution to it. In contrast, Hwee spent a large portion of time in the first recording recalling some ideas gathered from the documentary film that was played during the previous lesson. One last thing that was worth mentioning for this practice was that in her second recording, Hwee quoted an idea which she heard from a peer's recording. She then commented on the peer's view and provided her own reasoning for the phenomenon:

"就像捷威说过，当我听到他的录音时，我想笑可是我也是不可以笑。因为(.)当他说…可是我是觉得是因为他们有些也是不敢见老师(.)或向对他们点头。…"

Based on my teaching experience, students may not easily remember their peers' ideas, not to mention to quote them in their own oral performance in a traditional classroom setting. Hwee had demonstrated a possibility extended to students when the speaking practice was being mediated by audioblogs.

For the《青少年离家出走》 (Escape) practice, Hwee received comments from two peers. In both comments, the students echoed their agreement with the ideas which Hwee presented in her recordings. Both students ended their

comments saying that Hwee had made overall improvements: "总共，你有进步" and "总结其[起]来，你做得，好！". It was noted that Hwee did not find such comments useful as she reflected in her self-appraisal:

"这次我觉得我有进步，因为大家都说我讲得好，可是，如果要进步，什么就是好呢？"

Hwee thought that such comments were too general as her peers were unable to point out specifically in which aspects she had made improvement. Despite not getting helpful comments, Hwee proceeded to check on her fluency and identified the problem of breathing into the voice recorder when speaking. She had resolved the breathing problem in the second recording. Analysing and comparing the two recording transcripts, I have observed that Hwee had also made improvement in terms of richer content for the second oral performance. She provided more details on the impact of the phenomenon and proposed more solutions to tackle the issue.

For the《青少年沉迷于网上游戏》 (Gaming) practice, Hwee received comments from the two peers belonging to the same group. They commented on the fluency of her presentation, and the richness of the content. They also pointed out that Hwee repeated the same idea three times in one recording. As Hwee reflected upon this comment, she realised she had not managed to keep track of what she had said so as not to repeat the idea:

"我这次不小心说了一样的句子台[太]多次，可能是因为我忘了想要说了什么，所以不下[小]心乱说了。"

Hwee also noted in her self-appraisal that her pauses during speaking were a result of her being uncertain of what to say next or a result of her trying to find the appropriate words to say. Hwee felt that her first recording had been too lengthy. A reduction in length in the second recording was observed as a result. As this was the last cycle of the entire treatment, Hwee commented that she felt that she had improved in her ability to speak Chinese:

"做了这些录音后，我觉得我比较容易说华文，比以前更好。"

While I looked at Hwee's self-appraisals and the comments which she received, I also looked at the comments Hwee provided to her peers during the different cycles. I was however unable to find any evidence that the comments Hwee provided had affected her own oral performance or self-appraisal in any way. All in all, Hwee had shown improvement in her speaking tasks over time.

4.4.2   Case Study 2: Meng

4.4.2.1 Language Profile and Overview of Performance

Meng came from a Chinese-speaking home. Besides using Chinese most of the time, she also spoke dialect and occasionally English at home. In school, she used both Chinese and English in communicating with friends. The majority of the Chinese Language students in Singapore had a similar language usage profile as Meng. In general, the number of students who use Chinese dominantly at home and in school are on a decreasing trend (Ministry of Education, 2004).

During the treatment, Meng completed four out of the seven cycles of practices. The scores which she obtained for her weekly practices were listed in

Figure 4.5 (the maximum scores were 30 marks). The average scores were obtained

from three Chinese Language teacher's assessment. The interrater reliability for the

set of scores based on standardised Cronbach's alpha was .95.

Topic	Bully	Pressure	Courtesy	Escape
■ Attempt 1	16.0	20.7	18.3	21.3
■ Attempt 2	12.7	18.3	20.3	23.0
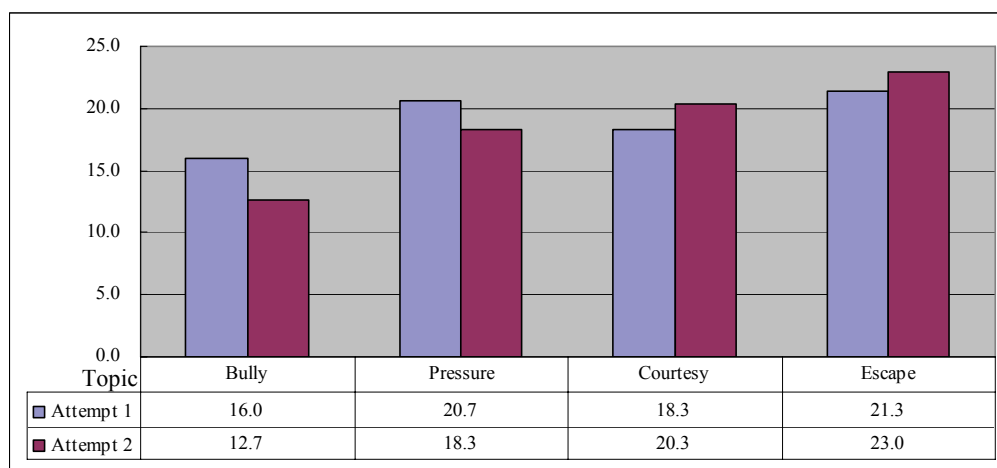
Note. Maximum score for each oral performance is 30.

Figure 4.5 Meng's scores for weekly oral performances

From the above results, I noticed that Meng's scores were on an increasing

trend as time proceeded. Comparing the scores of the first attempt and the second

attempt, two out of four topics showed marginal improvement in the second

attempt; while in the first two topics, the first attempts obtained better scores.

The length of Meng's oral performances can be found in Figure 4.6.

	Pretest	Bully	Pressure	Courtesy	Look	Posttest
■ Attempt 1	25.0	80.0	219.0	129.0	226.0	93.0
■ Attempt 2		45.0	76.0	152.0	277.0	
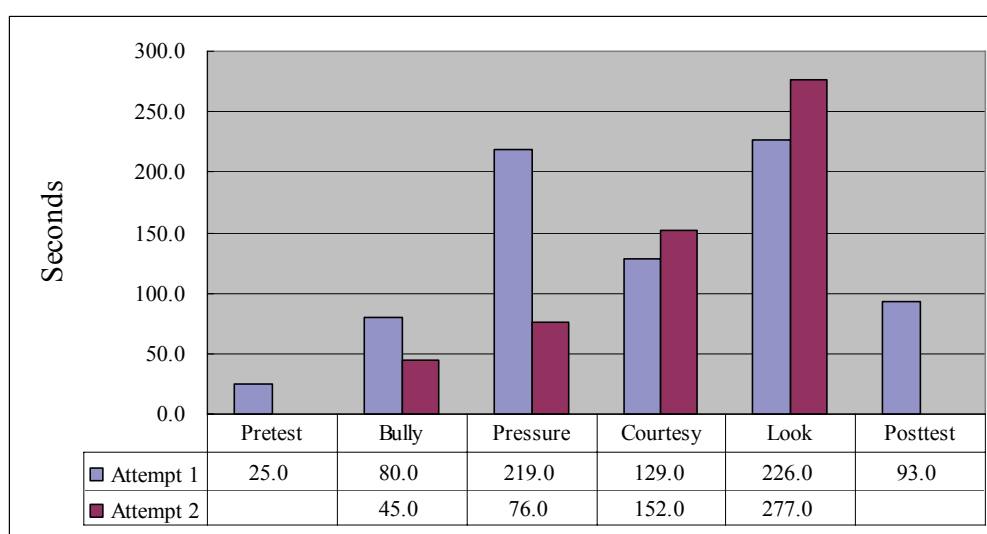
Figure 4.6 Meng's length of pretest, posttest and weekly oral performances in seconds

The lengths of the recordings were observed to fit an increasing trend as time passed. For the last two topics, the second recordings were longer than the first. In the first two topics, the first recordings were longer in duration. The correlation coefficient between the oral performance scores and the length of recording was .91. This indicated a close relationship between the two factors (Fraenkel and Wallen, 2006).

4.4.2.2 Individual Practices

I proceeded to examine the individual practices and tried to relate observations from the transcription of the oral performances, the self-appraisal, the comments received from peers and comments given to peers for each cycle.

For the 《校园恶霸》 (Bully) practice, Meng did not receive any peer comments. Looking at the self-appraisal, Meng expressed that she was not satisfied with her first oral performance as her friends' recordings were longer and richer in content, and they spoke with louder voices. Meng planned to learn from her peers and improve on all three aspects (loudness of voice, richness of content and duration of recording) as she wrote in her reflection:

> "下次，我应该尝试一下我讲的话比较大声一点，和
>
> 我应该加点内容，所以录音时间也会比较长一点。"

However, Meng did not carry out her plans. It was likely that she did a last minute work and carried out the recording just prior to attending the next lesson.

Voices of friends giggling in the background could be a source of distraction; the recording was also very short when compared to the other practices.

For the 《压力》 (Pressure) practice, no peer comment was received again. Examining the transcript of the first oral performance, the content was rich as Meng had analysed the various aspects of the phenomenon. In her self-appraisal, she reflected on her use of *Singlish*, an English-based creole language native to Singapore, and her inability to change this habit of speaking Singlish:

> "和我上一次比，我还是没有改掉我 SINGLISH 的坏习惯。…下一次录音，我不会再讲 SINGLISH 了。"

She had written in her reflection that she would like to avoid Singlish in her next recording. If I were to look at the transcript again, the Singlish word was 'lor' that was used three times. There were a couple of English words (e.g. 'then', 'like for example') in the first recording too. Comparing the second recording to the first one, almost all of the English words and 'lor' had disappeared. Only the word 'then' still persisted. It appeared that Meng may have extended the definition of 'Singlish' to include code-switching to English. While Meng may have made some progress in terms of expression, the content of the second recording was however reduced to only a fraction of the first recording.

For the 《新加坡人有礼貌吗？》(Courtesy) practice, Meng received comments from three peers. Besides words of encouragement and the echoing of ideas in agreement, they also noticed Meng's using of *Singlish,* which they deemed to be undesirable. They also commented that Meng was speaking too fast. Reviewing Meng's self-appraisal, she reflected upon the two points that the peers mentioned:

> "我又开始说 singlish 了。…我在先部分会比较快，我
>
> 觉得我应该进步在我的停顿上。"

Meng planned to slow down the speed of her speech as she reflected. By listening to the second recording, it was observed that Meng had acted as planned and the speed of the second oral performance was much slower then the first recording.

For the 《外貌还是内涵比较重要？》(Appearance) practice, only one peer's comment was received, which identified Meng's habit of pausing too often and of speeding up her speech too much after pausing. Meng's use of the Singlish 'lor' was also pointed out. In her self-appraisal, Meng reflected upon her fluency problem as highlighted in the peer's comment '你有很多停顿，然后突然讲很快。' This was the second time her peers commented about her speed of speaking. During her second round of reflection on this problem, Meng came to realise that her 'bad habit' of speaking too fast even in day-to-day contexts. She planned to set out to get rid of this habit of speaking too fast:

> "我这次的停顿又有问题了。我说话也太过快了。…
>
> 可能我平时间讲话太快了，已经成为我的习惯了。我
>
> 应该改掉我的坏习惯。"

On the other hand, Meng was pleased that she had made improvement as she was able to provide more examples to illustrate her views. In her reflection, she wrote:

"但是，我这次也有进步，给的例子比以前的还要多。"

While I looked at Meng's self-appraisals and the comments which she received, I also looked at the comments Meng provided to her peers during the different cycles. Like in the case of Hwee, I was unable to find any evidence that the comments Meng provided had affected her own oral performance or self-appraisal in any way.

4.4.3 Case Study 3: Zen

4.4.3.1 Language Profile and Overview of Performance

Zen is an Indonesian who has been studying in Singapore since primary school. He took up Chinese Language in school but at home, he spoke mostly English and occasionally Malay (Bahasa Indonesia). In school, he only used English to communicate with his friends. In terms of language use profile, Zen was very similar to Hwee. During the treatment, Zen completed five out of seven cycles of practices. The scores which he obtained for his weekly practices are listed in Figure 4.7 (the maximum score for each practice was 30 marks). Zen's recordings were originally assessed by three Chinese Language teachers. A set of marks from one teacher was discarded due to poor interrater reliability. The average scores were thus obtained from the remaining two sets of marks that yielded the highest interrater reliability, which was .93 based on standardised Cronbach's alpha.

Topic	Bully	Pressure	Courtesy	Escape	Gaming
Attempt 1	19.0	21.0	19.5	21.0	23.0
Attempt 2	16.0	17.5	18.0	22.5	24.5
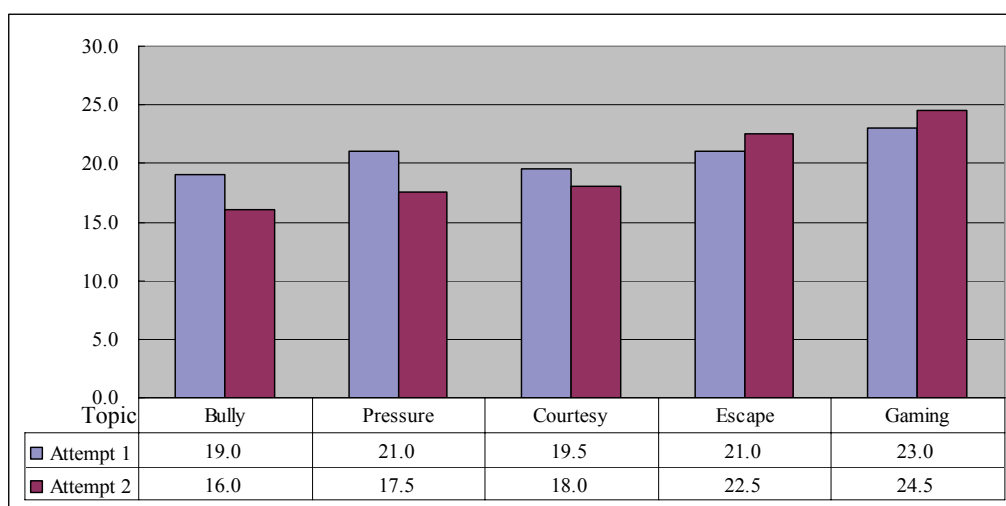
Note. Maximum score for each oral performance is 30.

Figure 4.7 Zen's scores for weekly oral performances

From the scores above, I observed that in the first three practices, the first oral performance was better than the second one. In the last two cycles, there were slight improvements in the second attempts when compared to the first.

The length of Zen's oral performances can be found in Figure 4.8.

Topic	Pretest	Bully	Pressure	Courtesy	Escape	Gaming	Posttest
Attempt 1	49.0	55.0	120.0	102.0	171.0	166.0	121.0
Attempt 2		58.0	110.0	80.0	214.0	190.0	
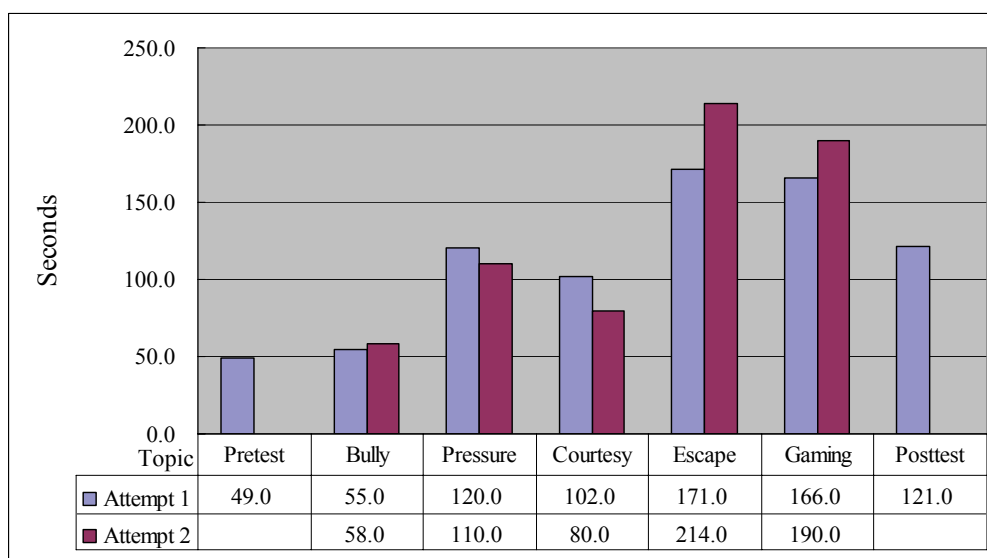
Figure 4.8 Zen's length of pretest, posttest and weekly oral performances in seconds

The lengths of the recordings did not increase in every cycle, but the increase in length over time can be observed. For three topics, the second recordings were longer than the first, while two topics had longer first recordings. The correlation coefficient between the oral performance scores and the length of recording was .86. This indicated a close relationship between the two factors (Fraenkel and Wallen, 2006).

4.4.3.2 Individual Practices

I looked at individual practices and tried to relate observations from the transcription of the oral performances, the self-appraisal, the comments received from peers and comments given to peers for the particular cycle.

For the 《校园恶霸》 (Bully) practice, no peer comment was received. In his self-appraisal, Zen reflected on the lessons that he learnt after listening to his peers' recordings. These included content, length of recording, and volume of voice. Zen reflected that his content was insufficient, the length of his first oral performance was too short, and his voice was too soft:

> "和别人的录音比较，我在内容上很差，因为别人的录音有很多内容，但是我的录音的内容很少。然后录音的时间很长，但是我的录音时间很短。有些人说话地很大声，但是我说话好像很小声。"

Zen wrote in his reflection that he planned to speak with a louder voice and to improve on the richness of the content. However, Zen did not get to improve on his content for the second recording. The ambience noise of his second recording

showed that it was done in school, probably completed in a hurry with distraction from his peers.

Comparing the recordings and the transcripts of the first and second recordings, it became obvious that the first recording was scripted and what Zen did was to read from a script. Tell-tale signs included the difference in fluency and intonation of the recordings. This could have explained why the first attempt scored better than the second attempt.

For the 《压力》 (Pressure) practice, once again there was no peer commenting on the oral performance. Based on his self-appraisal, Zen was pleased with his own performance as he felt he had improved compared to his first practice, although his recording had a shorter duration and his content was less than his peer:

> "我对自己的录音很满意，比以前的更好。和捷微比
>
> 较，我在内容上比他一点差。我的录音时间比他少，
>
> 但是我认为是还好的。"

In the later part of his reflection, Zen planned to work on the loudness of his voice in the next recording.

In this cycle, the issue of reading off a script instead of recording the oral performance spontaneously occurred again. Similar to the previous cycle, there was a marked difference in fluency between the first and second recordings. As a result, the first attempt was awarded three and a half marks more than the second attempt.

For the 《新加坡人有礼貌吗？》(Courtesy) practice, there were a total of four peers who commented on the first recording. Most of the comments were words of encouragement and the echoing of agreement for ideas put forward

in the recording. One student asked Zen to speak louder, while another student asked him to use a wider repertoire of words and phrases. However, Zen believed he had already improved in terms of the loudness of his voice:

> "我认为我这一次有一点进步，因为在这一次的录音里，我讲的话更大声。"

Zen had decided to place emphasis on improving his content for the next recording. Looking at the transcripts, Zen did not make any improvement as he had intended. In fact, his second recording was much shorter and it was given a lower score as well.

For the 《青少年离家出走》 (Escape) practice, Zen received comments from the two peers in his group. One student pointed out the inconsistency in the volume of Zen's voice which made comprehension difficult at times. The student also noted Zen's problem with fluency in his recording. The student highlighted one specific idea which she thought Zen should have included in his recording:

> "你忘了说 '如果哥哥/姐姐带弟弟/妹妹一起离家是什么原因'。"

The second student's comment contained mostly words of encouragement. Interestingly, he echoed what the first student mentioned about the idea that was missed out. This student mentioned that "like Zen, he too had forgotten to include the idea":

"我和你一样，忘了说'如果哥哥/姐姐带弟弟/妹妹

一起离家是什么原因'。"

Based on the transcript of the second oral performance, Zen included the idea of bringing siblings along to escape from home, the idea which his two peers mentioned in their comments.

For the 《青少年沉迷于网上游戏》 (Gaming) practice, the two peers in the group left comments for Zen. The comments stated that Zen had improved in terms of fluency and loudness of his voice. Zen was very encouraged by his peers' words as apparent in his self-appraisal:

"我认为我最后的录音比全部以前的是最好的，只是

我用了几个英文字自录音里。组员们说我的声音够大

声了。他们也有说我有多多的进步。我觉得很开

心。"

Zen felt that this was the best recording he had ever done when compared to his previous recordings. He did however note that he had used a couple of English words, which was discouraged in Chinese oral performance. Based on an analysis of listening and comparing the two recordings, I observed that Zen had made further improvements by enriching his content further for the second recording.

While I looked at Zen's self-appraisal and the comments which he received, I also looked at the comments Zen provided to his peers during the different cycles. Like in the previous two cases, I was unable to find any evidence that the

comments Zen provided had affected his own oral performance or self-appraisal in any way. All in all, Zen had shown improvement in his speaking tasks over time.

4.5 Summary of Findings

In summary, I observed that quantitatively and qualitatively, the students had made improvement in their oral performances during and after the treatment. The improvements in their oral pretest-posttest scores were statistically significant as reported in Section 4.2. The analysis of students' appraisal and oral performance transcriptions revealed that the interactions in audioblogs frequently involved the use of task knowledge. In addition, these interactions had brought changes to the students' metacognitive knowledge as well as their metacognitive awareness. The key findings of the study are summarised below:

1. Using the Wilcoxon test (non-parametric), the mean scores for the students' posttest oral performance had statistically improved when compared to the mean scores for the pretest oral performance.

2. A disproportionate distribution of metacognitive knowledge usage during students' self-appraisal was exhibited. Task knowledge was the predominant metacognitive knowledge used by students; person knowledge and strategy knowledge were seldom used by the students.

3. A positive correlation existed between the length of oral performance produced by the students and the scores awarded for the oral performance.

4. Through peer commenting and self-appraisal in audioblogs, students developed greater metacognitive knowledge and metacognitive awareness.

However, the students did not always translate the development into action to improve their subsequent oral performances.

5. During interactions in audioblogs, some students may show that they are limited by their metacognitive knowledge and metacognitive awareness. In such cases, the teacher can play an important role to provide timely interventions to correct errors made by the students and to scaffold them to further develop their metacognitive awareness.

Chapter 5 Discussions and Conclusions

5.1 Chapter Overview

The discussion in this chapter focuses on the key themes that I derived based on the findings presented in Chapter 4. Following that, implications of the study, recommendations for classroom adoption of the use of audioblogging for teaching and learning of speaking skills, as well as limitations of the study will be discussed. I will also discuss ideas for future research to build on the findings of this study.

5.2 Discussions

In this section, I put together the observations across all the information presented in the previous sections and case studies to identify recurring themes in the findings.

5.2.1 Task Knowledge Formed the Basis of the Students' Activities

Among the three types of metacognitive knowledge, task knowledge served as the basis for the students' activities in and around the audioblogs. More than 86% of the occurrences in students' self-appraisals made use of task knowledge. Likewise, nearly 92% of the occurrences in students' peer critique made use of their task knowledge on the speaking task. As described in the previous chapter, the term 'metacognition' and its meaning were not made known to them. The scaffolds provided for them to facilitate their activities were not labelled as metacognitive strategy or metacognitive knowledge. To observe that the students had focused very much on task knowledge, it may reflect the existing understanding of the students about the speaking task. Being task-oriented, they focused on the components that made up of the task, namely content and expression. The implication is that our students may have the parochial view that learning to speak

a language comprises learning about the task components. They may not realise how other factors (e.g. learner's characteristics, application of learning strategies etc.) can contribute to and affect their oral performances.

The findings that students were not drawing as much on person knowledge and strategy knowledge also suggest that they require training in a metacognitive approach that focuses them on person knowledge and strategy knowledge when learning Chinese Language.

5.2.2 A Systemic Approach to Self-Appraisal Emerged from Students' Self-appraisals

As presented previously, most students' self-appraisals contained essentially all the three metacognitive strategies each time they were asked to reflect on their speaking task. Although the scaffolds provided opportunities for different approaches to the self-appraisal, a prominent pattern emerged in almost all the pieces: evaluating → monitoring → planning. In cases where the students followed the list of scaffolds very closely, they would add an additional 'evaluating' step, that is, evaluating → monitoring → planning → evaluating. These were the two prominent patterns that emerged after studying the 7 students' self-appraisals.

5.2.3 Disproportionate Distribution of Metacognitive Knowledge Usage During Students' Self-Appraisal

A disproportionate distribution in the usage frequency of the three types of metacognitive knowledge was observed. It was observed that task knowledge was the dominant category of metacognitive knowledge that was used throughout the activities in the audioblogs. While it appeared that the students were task-oriented

and focused during their self-appraisals, it also indicated that they were not aware of the importance of person knowledge and strategy knowledge in contributing towards the learning of the speaking task.

Nevertheless, I noted that students had the tendency to use person knowledge more often during monitoring of their past speaking tasks. In addition, the students used strategy knowledge more often during their planning for their future speaking tasks. This imbalance in the choice of metacognitive knowledge suggested that the students had not acknowledged the importance of how their individual characteristics can influence their future learning events and how learning strategies can be adapted and applied to suit their different personalities. I observed in the students' self-appraisals how their habits (such as a tendency to use Singlish) had affected some of their oral performances. It would probably be more effective if students were able to turn inwards to review their person knowledge and adapt their strategy knowledge accordingly each time they reviewed the past speaking task and planned for the future task. Of course, person knowledge and strategy knowledge cannot work in isolation without task knowledge. It is important to highlight to all students the importance of synergizing all three types of metacognitive knowledge so that their overall level of metacognitive awareness can be enhanced.

5.2.4 Longer Oral Performance Yielded Higher Oral Score

In the in-depth analysis of individual students' oral performances in the three case studies, it was noted that the average correlation of length of oral performance to the scores awarded was about .86. While this correlation is not a perfect one, it suggests the relationship that the longer an oral performance, the higher the score it

can possibly attain. There were exceptions among the three case studies where a longer second recording obtained a lower or equal score as the first recording (e.g. Zen's *Bully* cycle) and where a shorter second recordings obtained an equal or higher score as the first recording (e.g. Hwee's *Courtesy* cycle). As I analysed the transcripts of the oral recordings, these exceptions could be traced to a difference in fluency or in content details. Generally, the transcripts revealed that the longer recordings were generally richer in content. Naturally, more time was needed for the elaboration of more ideas.

5.2.5 Extent and Limitation of Self-Appraisal Facilitated by Audioblogs when Peers' Comments Were Not Available

In the three case studies that I looked at, all the three students interacted in the audioblogs environment without peers to critique on their oral performances for the first two cycles. This was a result of the dysfunctional group that the three students were attached to when the treatment first started. These three students however listened to their peers' recordings, which led to learning on their part as I observed in their self-appraisals and the oral transcripts. By listening to their peers' recordings, the three students were able to make improvements in both content and expression. In terms of content, the students were able to gain useful ideas from their peers' recordings and used them to enrich their own second recordings. Where expression was concerned, the students were able to identify problem in terms of loudness and inappropriate usage of words.

It was however noted that under such a situation where the interactions in the audioblogs were not fully carried out, students were reflecting entirely based on their personal metacognitive knowledge and beliefs. When they were planning for

their future speaking task based on these, it turned out that they may dismiss areas of improvement as non-problematic. A moderation effect based on the community's collective metacognitive knowledge was missing. An example was in Zen's *Pressure* cycle. I observed that Zen wrote in his self-appraisal that he was pleased with his own performance. This was despite my assessment that his oral performance was shorter in duration and less rich in content compared to his peers. This implies that the potential of audioblogs environment can only be realised if the students effectively exchanging comments with their peers.

5.2.6 Influence of Peer Commenting On Students' Self-Appraisal and Oral Performance

In the case studies, peer comments only started to appear in the third cycle for each of the three students. The influence of peers' comments often led to a reflection on the issue(s) surfaced in the self-appraisal (e.g. Hwee's *Gaming* cycle and *Escape* cycle; Meng's *Courtesy* and *Look* cycle; Zen's *Courtesy* cycle), and sometimes the effects may also be observable in their second recording (e.g. Zen's *Escape* cycle). As I analysed earlier that the peers had provided comments based on their individual metacognitive knowledge, during such an interaction, individual student was externalising his/her own set of metacognitive knowledge to the community. This interaction brought about by a peer commenting in the audioblogs provided opportunities for the students to appropriate from other's metacognitive knowledge. This process could have possibly enriched the individual student's metacognitive knowledge and brought about greater metacognitive awareness as I observed the changes made by the students in their subsequent recordings.

5.2.7 Peer Commenting Brought About Greater Metacognitive Awareness

in Student's Metacognitive Knowledge

I observed that students were able to make new connections between their different types of metacognitive knowledge after receiving comments from peers. As seen in Meng's self-appraisals for *Bully* and *Pressure* cycles when no peers had provided any comments, Meng already possessed the task knowledge that the speaking task should be carried out at a moderate pace. With this knowledge, she seemed to detect some fluency issue in her oral performance. However, as she was unable to tell the extent of it, she wrote in her *Pressure* self-appraisal that she had made improvements in her speed of speaking "但我觉得我的停顿会比较好".

The extent of the problem became clear to her when her peers pointed out that they thought that Meng was still speaking too fast, and it was causing hindrance to the comprehensibility of her oral performance. This realisation of the extent of her problem likely led to Meng making a new connection to her person knowledge which was not earlier observed in the self-appraisal. Meng's way of speaking had in fact influenced not only her oral performance but her daily conversation as well. Meng's person knowledge revealed that she was aware that she had this 'bad daily habit' of speaking too fast. By making connection between this person knowledge and the task knowledge, she realised the root cause of the issue that seemed to be bugging her. Not only had her peers' comments highlighted an existing problem, they had led Meng to reflect further to make new connections in her metacognitive knowledge.

Her peers' comments had also repeatedly reminded Meng of yet another 'bad habit' of mixing Singlish with Chinese. Meng was once again observed to make the connection between the task knowledge of code-mixing (which was

included in Meng's extended definition of Singlish) and her person knowledge on the habit. These reminders had possibly brought about greater metacognitive awareness in Meng. Towards her last cycle of practice, I observed that Meng was speaking at a much more steady speed and her code-mixing habit had minimised.

5.2.8 Greater Metacognitive Awareness May Not Necessarily Translate

Into Action

While self-appraisal had brought about greater metacognitive awareness as described above, the students may not necessarily translate the newly acquired metacognitive knowledge into actions. There were different reasons why such a translation did not occur, and I was able to observe three instances from the case studies. In Meng's *Bully* cycle, she had failed to carry out what she had planned as she did last minute work prior to the lesson. Moreover, the presence of her friends giggling in the background could have been a major source of distraction. Similarly, in Zen's *Bully* cycle, the second recording was done in school with distractions from peers around him. The plans he made in his self-appraisal were thus not carried out. In another cycle, Zen was unable to improve on his content for his second recording for *Courtesy* as he had planned. The reason was unknown in this case. Hence I observed that while peers interacting cognitively via the audioblogs environment were helpful, in terms of oral performance, the presence of peers could also be a distractor. The students were unable to carry out their plans made with their increased metacognitive awareness when they were distracted from their task.

5.2.9 Student Metacognitive Knowledge Limited At Times - The

Importance of Teacher Facilitator-and-Moderator

Although I observed that students were able to reflect, learn and improve on their oral performances, they were at times unable to provide comments on how their peer could improve further. An example was seen in Hwee's *Escape* cycle where I observed Hwee's frustration over comments saying "good work" and "overall well done". Limited metacognitive knowledge might have prevented students from pinpointing specifically what was good and what was well done. This example also highlighted an important issue regarding the extent to which a student can gain in his/her metacognitive knowledge if members of his/her group had similar or lesser metacognitive knowledge. The teacher facilitator, with richer metacognitive knowledge and a higher level of metacognitive awareness, needs to step in to provide probing questions to further scaffold the students. This can possibly lead students to think deeper and further develop their metacognitive awareness.

In Zen's *Escape* cycle, I observed that Zen had included a suggestion from his peers' comments. From an assessment perspective, the suggested idea did not help in enriching the content as it was quite an irrelevant point. But the peers' suggestions seemed to reinforce each other and it had an impact on Zen. The teacher facilitator in this case could double up as a moderator to highlight to the students why it was an irrelevant point that they had added to their second recordings.

Although I discussed in these two examples how the teacher could play an important role of facilitator-and-moderator, it was not in the design of the current treatment for the teacher to be involved in the interactions in the audioblogs.

5.3 Implications

Based on the findings of the study, there are a few implications which I can draw for both research and practice.

From the research perspective, this study echoes positive findings from research in the western world languages (e.g. Cohen et al., 1998, O'Malley et al., 1985, cited in Nakatani, 2005). The findings suggest that the teaching of Chinese Language speaking can benefit from the incorporation of metacognitive strategies. In addition, this study also contributes to the field of Multimedia Chinese Computer-Assisted Instruction (MCCAI) by exploring a student-centered approach for teaching of Chinese Language with the use of ICT. This in turn brings MCCAI a step closer to the Vygotskian sociocultural model of language learning. Students can negotiate what is a good piece of oral performance in their interactions in the audioblogs, where the use is grounded in the Vygotskian model of social meaning making. This study serves to reinforce existing literature that blogs can facilitate negotiation of meaning in language learning tasks.

From the practice perspective, although I cannot conclude a direct cause-and-effect of the treatment, the statistically significant improvement in speaking results should encourage teachers to explore the approaches to teaching speaking described in the study. By adopting the approach used during treatment, teachers can possibly move away from the traditional teacher-centered Chinese Language classrooms towards a more student-centered one. In incorporating ICT into teaching and learning, Chinese Language teachers can use audioblogs to enhance interactions among students during learning and even beyond the classrooms.

From the policy maker's perspective, this study answers the call to change the way speaking is taught, and allows teachers to overcome the limited interaction time during curriculum hours. By using the features of audioblogs, this study aims to promote language learning. On the whole, the metacognitive approach of the treatment can possibly promote independent language learning.

5.4 Limitations of the Study

This study was conducted with numerous limitations but it is hoped that the ideas obtained will help to generate and improve future research.

Though the findings from this research showed that the treatment may have led to students improving in their speaking skill, I have to bear in mind that other factors may affect the reliability and validity of the findings. One of these factors is the effect of task repetition (Bygate, 1996, 2001, 2005), where research has shown that language learners may show improvement by performing a language task repeatedly. In these studies, no intervention was taken in between the two tasks. Future study can possibly include in its design a phase to study the effect of task repetition, if any.

From the implementation perspective, an external researcher entering the school system adopting the form of an 'after-school enrichment lesson' posed great challenge. This meant that students were required to spend extra time and effort to take part in the study. The high level of commitment required from the students was not easily obtained. Parents may also serve as hindrance to the study as some of them would like their children to concentrate their efforts on the core curriculum, instead of enrichments which were deemed to be less important. This limitation had taken its toll in the present study right from the start when I was unable to get 30 or

more participants for the study. Students' commitment to 'enrichment' was low and these directly affected the consistency in the work of the students. Many students were inconsistent in their work during the treatment when they were distracted by other commitments such as co-curricular activities, remedial lessons, home tuitions, continual assessments, project works, other enrichment classes et cetera. As a result, I had to rely on the work of only seven students for the purpose of my analysis and discussions. Even then, these seven students were not entirely free from the effect, and they were all unable to complete the *Teacher-student relationship* cycle (during Week 3) as they concentrated their effort to study for the common tests.

From a research perspective, a bigger class size and a control group would greatly enhance the validity and generalisability of the findings. A teacher in the school may be able to use two of his/her classes of 30 or more students each to set up an experimental design. By integrating the processes into curriculum time, the teacher researcher may have fewer problems obtaining the students' commitment in their work. In addition, the time for the study may be extended for a longer period to obtain more data for analysis.

Due to the technical constraints of the audioblog software setup, the students were asked to provide comments through typing, instead of recording their comments and uploading the recorded comments. This posed yet another technical challenge as not all students were able to input Chinese characters with their computers at home. Some students also had difficulty giving their comments as they were grappling with the Chinese input method, which they were not familiar with. This could have affected the motivation of the students when providing comments. Both the quality and quantity of the comments could have been affected. Asking students to speak and record their comments may overcome this obstacle.

This would however extend the timeframe of the whole research as all comments would need to be transcribed before analysis can be carried out.

From the language learning perspective, this study only looked at the students performing monologue on a given topic. Where learning speaking is concerned, the purpose is to achieve communication (Bygate, 1987). There are other aspects which need to be taught and learnt by students to achieve effective communication with other people.

5.5 Recommendations for Further Studies

Reflecting upon the findings of this study and the discussions I had carried out, some recommendations are put forward for any classroom teacher seeking to implement similar methods of instruction or for a researcher who would like to conduct similar research.

The approach used in this study involved the use of audioblogs as the technological platform. As such, any Chinese Language teacher adopting the methods of instructing speaking described herein have to provide an individual audioblog account for each student in class. As technology evolves, other online technological platforms that allow posting and commenting can be adapted for use. The provision of disk space and the availability of bandwidth for the server are important considerations as voice recordings are relatively big in file size. One-to-one allocation of portable voice recorders is ideal as students do not need to be seated in front of a computer when they need to perform their speaking tasks. In cases where it is not achievable, students can also make use of microphones attached to computer and laptops to record their voices. A researcher can take into

consideration the different possibilities afforded by the different or advanced technological setup in his/her research design.

Although the effect of group dynamics was not researched in this study, the allocation of student groups was important to the implementation of the study. If group members do not contribute quality comments or are equally low in metacognitive awareness and lacking in metacognitive knowledge, the impact of the treatment may be diluted. In this study, the initial group allocation did not work out well and a couple of non-performing students in each group were enough to adversely affect the entire research. To remedy the situation, the students were reallocated with consideration from how the students were interacting with each other face-to-face during lessons. Hence, it is recommended that a teacher should try to understand the dynamics of his/her students in both online and face-to-face situations and group them accordingly. This will not only ensure the smooth implementation of the task cycles, but more importantly, the students get to interact in the audioblogs as planned and desired. Future research may want to study the effects of group dynamics on the development of metacognitive awareness and metacognitive knowledge of the students.

As seen and discussed in Chapter 4, the scaffolding questions played an important role in facilitating the students' comments and self-appraisals. A teacher who seeks to carry out similar learning activities should provide scaffolds for the student interactions in the audioblogs. As discussed, our results indicated that students had the tendency to use task knowledge and tend to neglect the use of person knowledge and strategy knowledge. Scaffolds can be developed to focus the students' attention on these two types of metacognitive knowledge. These can possibly lead to an improvement in all three types of metacognitive knowledge.

Future research can possibly look at the development of students' metacognitive knowledge when such scaffolds are provided.

As I was an external party carrying out this study as a series of enrichment lessons, integration and alignment with existing classroom instructions was not possible. Looking at past research, the benefits of combining listening, speaking, reading and writing activities to provide a rich and total learning experience have been reiterated by many researchers (e.g. Goodman, 1989; Maxwell & Meiser, 1997; El-Koumy, 2002). Hence, it would be ideal for a teacher to integrate the use of audioblogs and the metacognitive approach to the language learning activities in a total approach. Future research can study the effect of a total approach on the development of students' metacognitive knowledge.

In the comments that I studied in Chapter 4, I observed many students giving words of encouragement to cheer their peers to keep up the good work. In two of the case studies, I observed that the students wrote in their final self-appraisals that they were very encouraged by the good words put in by their friends on their work. Future research can possibly study the effects of such encouraging words on the development of students' metacognitive awareness.

5.6 Concluding Remarks

In summary, this research studied a metacognitive approach to the teaching of Chinese Language speaking that made use of audioblogs as the ICT tool to facilitate language learning tasks. The findings in this study show positive indications of the benefits of this approach, which could be verified in future research. It also reveals students' usage pattern of metacognitive knowledge which helps to identify areas for improvement in future implementation of similar approach. This study is a baby step that provides much food for thought as I continue to explore innovative ways to teach speaking in Chinese Language by harnessing capabilities and potentials of emerging technologies.

References

Anderson, N. J. (2002, April). The role of metacognition in second language teaching and learning. *ERIC Digest* (EDO-FL-01-10). Retrieved July 27, 2006, from http://www.cal.org/resources/digest/0110anderson.html

Bereiter, C. (2002). *Education and mind in the knowledge age.* Mahwah, NJ: Lawrence Erlbaum Associates.

Bloom, B. S. (Ed.). (1961). *Taxonomy of educational objectives* (Book 1). NY: Longman.

Brown, A. L. (1987). Metacognition, executive control, self-regulation and other more mysterious mechanisms. In F. E. Weinert & R. H. Kluwe (Eds.), *Metacognition, Motivation and Understanding* (pp. 31-64). Hillsdale, New Jersey: Lawrence Erlbaum Associates,

Bruning, R. H., Schraw, G. J., & Ronning, R. R. (1995). *Cognitive psychology and instruction* (*2nd ed.)*. Englewood Cliffs, NJ: Prentice Hall.

Bygate, M. (1987). *Speaking*. Oxford University Press.

Bygate, M. (1996). Effects of task repetition: Appraising the developing language of learners. In J. Willis & D. Willis (Eds.), *Challenge and Change in Language Teaching* (pp. 136-145). London: Heinemann.

Bygate, M. (2001). Effects of task repetition on the structure and control of oral language. In M. Bygate, P. Skehan, & M. Swain (Eds.), *Researching Pedagogic Tasks: Second Language Learning, Teaching and Testing* (pp. 23-48). Harlow: Pearson Education Limited.

Bygate, M., & Samuda, V. (2005). Integrative planning through the use of task-repetition. In R. Ellis (Ed.), *Planning and Task Performance in a Second Language* (pp. 37-74). Amsterdam: John Benjamins Publishing.

Carrell, P. L. (1989). Metacognitive awareness & L2 reading. *The Modern Language Journal, 73*(ii)*,* 121-134.

Carrell, P. L. (1998). Can reading strategies be successfully taught? [Electronic version]. *The Language Teacher, 22*(2). Retrieved December 12, 2006, from http://www.jalt-publications.org/tlt/files/98/mar/carrell.html

Chamot, A. U. (1993). Effective instructional practices enhance student achievement (Online). *Forum, 16*(4). Retrieved May 26, 2006, from http://www.ncela.gwu.edu/pubs/forum/1604.htm

Chamot, A. U. (1999). Learning strategy instruction in the English classroom [Electronic version]. *The Language Teacher, 23*(6). Retrieved December 12, 2006, from http://www.jalt-publications.org/tlt/articles/1996/06/chamot

Chapelle, C. (2001). *Computer applications in second language acquisition*. Cambridge United Kingdom: Cambridge University Press.

Chong, E. K. M., & Soo, W. M. (2005). *Higher-order learning in music through blogs.* Paper presented at the Redesigning Pedagogy Conference, May 30 – Jun 1, Singapore.

Chun. D. M., & Plass, J. L. (2000). Networked multimedia environments. In M. Warschauer, & R. Kern, (Eds.), *Network-based language teaching: Concepts and practice*. Cambridge, England: Cambridge University Press.

Coffin, C., & Hewings, A. (2005). Engaging Electronically: Using CMC to Develop Students' Argumentation Skills in Higher Education. *Language & Education, 19*(1)*, 32-49.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16, 297-334.

Cutting, M. (2004). Making the transition to effective self-access listening. *The Language Teacher, 28*(6)*, 21-24.

Devine, J., Railey, K., & Boshoff, P. (1993). The implications of cognitive models in L1 and L2 writing. *Journal of Second Language Writing, 2,* 203-225.

Downes, S. (2004). Educational blogging. *EDUCAUSE Review, 39*(5)*, 14–26.* Retrieved February 01, 2005, from http://www.educause.edu/pub/er/erm04/erm0450.asp?bhcp=1

Eastment, D. (2005). Blogging. *ELT Journal, 59*(4)*, 358-361.

El-Koumy, A. A. (2002). *Teaching and learning English as a foreign language: A comprehensive approach*. Cairo, Egypt: Dar An-Nashr for Universities. ERIC Document Reproduction Service No. ED 490 784).

Ferdig, R. E., & Trammell, K. D. (2004). Content delivery in the 'Blogosphere' [Electronic version]. *T.H.E. Journal, February 2004*. Retrieved February 01, 2005, from http://www.thejournal.com/magazine/vault/articleprintversion.cfm?aid=4677

Flatley, M. E. (2005). Blogging for enhanced teaching and learning. *Business Communication Quarterly, 68*(1), 77-80.

Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive-development inquiry. *American Psychologist, 34*(10), 906-911.

Flavell, J. H. (1985). *Cognitive development* (2nd ed.). Englewood Cliffs, NJ: Prentice Hall.

Flavell, J. H. (1987). Speculations about the nature and development of metacognition. In F. E. Weinert, & R. H. Kluwe (Eds.), *Metacognition, Motivation and Understanding* (pp. 21-29). Hillsdale, New Jersey: Lawrence Erlbaum Associates.

Fotos, S., & Browne, C. M. (2004). The development of CALL and current options. In S. Fotos & C. M. Browne (Eds.), *New perspectives on CALL for second language classrooms*. London: Lawrence Erlbaum Associates.

Fraenkel, J. R., & Wallen, N. E. (2006). *How to design and evaluate research in education* (6th ed.). New York: McGraw-Hill.

Fujiuchi, K. (2006). The Human-Powered Blog. *Learning Technology Newsletter, 8*(4)*,* 5-6.

Furstenberg, G., Murray, J. H., Malone, S., & Farman-Farmaian, A. (1993). *A la rencontre de Philippe.* New Haven: Yale University Press.

Garson, G. D. (2007). *Reliability Analysis*. Retrieved Apr 1, 2007, from North Carolina State University, College of Humanities and Social Sciences Web site: http://www2.chass.ncsu.edu/garson/pa765/reliab.htm

Goh, C. C. M. (1997). Metacognitive awareness and second language listeners. *ELT Journal, 51*(4)*,* 361-369.

Goh, C. C. M., & Liu, X. L. (1999). Learning environments and metacognitive knowledge about language learning. *Hong Kong Journal of Applied Linguistics, 4*(2)*,* 41-56.

Goh, C. C. M., & Taib, Y. (2006). Metacognitive instruction in listening for young learners. *ELT Journal, 60*(3)*,* 222-232.

Goh, C. C. M., & Zhang, D. (2002). A metacognitive framework for reflective journals. In A. S. C. Chang, & C. C. M. Goh (Eds.), *Teachers' handbook on teaching generic thinking skills* (pp. 8-21). Singapore: Prentice Hall.

Goodman, K. S. (1989). Whole-language research: Foundations and development. *The Elementary School Journal, 90*(2)*,* 207-221.

Gopinathan, S. (1998). Language policy changes 1979-1997: Politics and pedagogy. In S. Gopinathan, A. Pakir, W. K. Ho, & V. Saravanan (Eds.), *Language, society and education in Singapore: Issues and trends* (2nd ed.). Singapore: Times Academic Press.

Guba, E., & Lincoln, Y. (1981). *Effective evaluation: Improving the usefulness of evaluation results through responsiveness and naturalistic approaches*. San Francisco: Jossey-Bass.

Hacker, D. J. (1998). Definitions and empirical foundations. In D. J. Hacker, J. Dunlosky & A. C. Graesser (Eds.), *Metacognition in educational theory and practice* (pp. 1-24). Mahwah, New Jersey: Lawrence Erlbaum Associates.

Harris, C. (2006). Blogs, Podcasts, and the letter J. *Library Media Connection, 25*(2)*,* 60-61.

Herring, S. C. (2004). Slouching toward the ordinary: current trends in computer-mediated communication. *New Media and Society, 6*(1)*,* 26-36.

Huffaker, D. (2004). The educated blogger: Using Weblogs to promote literacy in the classroom. *First Monday, 9*(6). Retrieved December 19, 2006, from http://firstmonday.org/issues/issue9_6/huffaker/index.html

Hyde, A. A., & Bizar, M. (1989). *Thinking in context: Teaching cognitive processes across the elementary school curriculum*. New York: Longman.

Imhof, M. (2001). How to listen more efficiently: Self-monitoring strategies in listening. *International Journal of Listening, 15,* 2-19.

James, J. (1998). Linguistic realities and pedagogical practices in Singapore: Another perspective. In S. Gopinathan, A. Pakir, W. K. Ho, & V. Saravanan (Eds.), *Language, Society and Education in Singapore: Issues and Trends* (2nd ed.). Singapore: Times Academic Press.

Jeone-Ellis, G., Debski, R., & Wigglesworth, G. (2005). Oral interaction and around computers in the project-oriented CALL classroom. *Language Learning & Technology, 9*(3)*,* 121-145.

Jonassen, D.H., & Roher-Murphy, L. (1999). Activity theory as a framework for designing constructivist learning environments. *Educational Technology Research & Development, 47*(1), 61-79.

Kasper, L. F. (1997). Assessing the metacognitive growth of ESL student writers. *TESL-EJ, 3*(*1).* Retrieved December 12, 2006, from http://www-writing.berkeley.edu/TESL-EJ/ej09/a1.html

Kellogg, R. T. (1994). *The psychology of writing*. New York: Oxford University Press.

Kennedy, K. (2003). Writing with web logs. *Technology & Learning, 23*(7), 11-12.

Kern. R., & Warschauer, M. (2000). Theory and practice of network-based language teaching. In M. Warschauer, & R. Kern (Eds.), *Network-based language teaching: Concepts and practice*. Cambridge, England: Cambridge University Press.

Krause, S. (2005). Blogs as a tool for teaching. *Chronicles of Higher Education, 51*(42)*, B33-B35*.

Levy, M. (1997). *Computer-assisted language learning: context and conceptualization*. Oxford: Clarendon Press.

Linnell, J.L. (2001). Chinese as a second/foreign language teaching and research: changing classroom contexts and teacher choices. *Language Teaching Research, 5*(1), 54-81.

Liu, Y., Kotov, R., Rahim, R. A., & Goh, H. H. (2005). Chinese language pedagogic practice: a preliminary snapshot description of Singaporean Chinese language classrooms. Retrieved December 12, 2005 from http://www.crpp.nie.edu.sg/file.php/254/RRS04-011_final_version_.pdf

Livingston, J. A. (1997). *Metacognition: an overview*. Retrieved November 11, 2006, from http://www.gse.buffalo.edu/fas/shuell/CEP564/Metacog.htm

Maxwell, R.J., & Meiser, M. J. (1997). *Teaching English in Middle and Secondary Schools* (2nd ed.). Upper Saddle River, N.J. : Merrill.

Miles, M. B., & Huberman, A. M. (1984). *Qualitative data analysis.* Beverly Hills: Sage.

Ministry of Education. (2002). Chinese language syllabus - secondary [Electronic version]. Retrieved October 26, 2005, from http://www.moe.gov.sg/cpdd/doc/chinese/CLSyllabus%202002%20%20Folder/CL%20Syllabus%20Secondary%202002.pdf

Ministry of Education. (2004). Report of the Chinese language curriculum and pedagogy review committee [Electronic version]. Retrieved October 26, 2005, from http://www.moe.gov.sg/press/2004/CLCPRC%20Committee%20Report.pdf

Mokhtari, K., & Reichard, C. A. (2002). Assessing students' metacognitive awareness of reading strategies. *Journal of Educational Psychology, 94*(2)*, 249-259.

Nakatani, Y. (2005). The effects of awareness-raising training on oral communication strategy use. *The Modern Language Journal, 89*(i)*, 76-91.

Nardi, B.A., Schiano, D.J., & Gumbrecht, M. (2004). *Blogging as social activity, or, would you let 900 million people read your diary?* Proceedings of the 2004 ACM conference on Computer supported cooperative work. Chicago, IL, USA: ACM Press. pp. 222-231.

North Central Regional Educational Laboratory. (2003). *enGauge 21st century skills: literacy in the digital age.* Retrieved April 10, 2006, from http://www.ncrel.org/engauge/skills/skills.htm

Nardi, B.A., Schiano, D.J., & Gumbrecht, M. (2004). *Blogging as social activity, or, would you let 900 million people read your diary?* Proceedings of the 2004 ACM conference on Computer supported cooperative work. Chicago, IL, USA: ACM Press. pp. 222-231.

Oravec, J. A. (2003). Blending by blogging: Weblogs in blended learning initiatives. *Journal of Educational Media, 28*(2-3)*,* 225-233.

Paolillo, J. C. (2001). Language variation on internet relay chat: A social network approach. *Journal of Sociolinguistics, 5*(2), 180-213.

Paquet, S. (2003). *Personal knowledge publishing and its uses in research*. Retrieved May 29, 2003 from http://www.knowledgeboard.com/cgibin/item.cgi?id=96934&d=744&h=746&f=745

Paris, S. G., Cross, D. R., & Lipson, M.Y. (1984). Informed strategies for learning: A program to improve children's reading awareness and comprehension. *Journal of Educational Psychology, 76*(6), 1239-1252.

Paris, S.G., & Winograd, P. (1990). How metacognition can promote academic learning and instruction. In B. F. Jones & L. Idol (Eds.), *Dimensions of thinking and cognitive instruction* (pp. 15-51). Hillsdale, New Jersey: Lawrence Erlbaum Associates.

Payne, J. S., Ross, B. M. (2005). Synchronous CMC, working memory, and L2 oral proficiency development. *Language Learning & Technology, 9*(3)*,* 35-54.

Perkins, D.N., & Saloman, G. (1992/1994). Transfer of learning [Electronic version]. In Husén, T., *The International Encyclopedia of Education* (2nd ed.). Oxford, England: Pergamon Press. Retrieved December 29, 2006, from http://learnweb.harvard.edu/alps/thinking/docs/traencyn.htm

Richards, J., & Rodgers, T. (2001). *Approaches and methods in language teaching* (2nd ed.). Cambridge, England: Cambridge University Press.

Richardson, W. (2005a). Blog revolution. *Technology & Learning, 26*(3)*,* 48.

Richardson, W. (2005b). The educator's guide to the read/write web. *Educational Leadership, 63*(4)*,* 24-27.

Rolheiser-Bennett N. C., Bower, B., & Stevahn, L. (2000). *Portfolio organizer*: Succeeding with portfolios in your classroom. Alexandria, VA: Association for Supervision & Curriculum Development.

Rosell-Aguilar, F. (2005). Task design for audiographic conferencing: Promoting beginner oral interaction in distance language learning. *Computer Assisted Language Learning, 18*(5)*,* 417-442.

Rost, M. (2001). Listening. In R. Carter, & D. Nunan (Eds.), *The Cambridge Guide to Teaching English to Speakers of Other Languages*. Cambridge: Cambridge University Press, pp. 51-84.

Scholfield, P. (1995). *Quantifying language: A researcher's and teacher's guide to gathering language data and reducing it to figures*. Clevedon, UK: Multilingual Matters.

Segerstad, Y. H. A., & Ljungstrand, P. (2002). Instant messaging with WebWho. *International Journal of Human-Computer Studies, 56*(1), 147-172.

Silverman, D. (2006). *Interpreting qualitative data: Methods for analyzing talk, text and interaction* (3rd ed.). London: SAGE Publications.

Stemler, Steven E. (2004). A comparison of consensus, consistency, and measurement approaches to estimating interrater reliability. *Practical Assessment, Research & Evaluation, 9*(4). Retrieved March 31, 2007 from http://pareonline.net/getvn.asp?v=9&n=4

Tan, Y. H., Ow, E.G. J., & Tan, S.C. (2006). *Audioblogging: Supporting the Learning of Oral Communication Skills in Chinese Language.* Paper presented at the AECT Research Symposia, Indiana, United States. Retrieved September 1, 2006, from http://www.moe.gov.sg/edumall/rd/publications/aect2006.pdf

Tan, Y.H., Teo, E.H., Aw, W.L., & Lim, W.Y. (2005). *Portfolio building in Chinese language learning using blogs.* Paper presented at the BlogTalk Downunder 2005 Conference, Sydney, Australia, May 19-22. Retrieved July 08, 2005, from http://www.moe.gov.sg/edumall/rd/publications/blogtalk.pdf

The Guardian. (2004, December 2). *Personal soundtracks*. Retrieved November 04, 2005, from http://technology.guardian.co.uk/online/story/0,3605,1363637,00.html

Vandergrift, L. (2003). From prediction through reflection: Guiding students through the process of L2 listening. *The Canadian Modern Language Review, 59*(3)*,* 425-440.

Volle, L. M. (2005). Analyzing oral skills in voice e-mail and online interviews. *Language Learning & Technology, 9*(3)*,* 146-163.

Wang, Y. (2004). Supporting synchronous distance language learning with desktop videoconferencing. *Language Learning & Technology, 8*(3), 90-121.

Ward, J. M. (2004). Blog assisted language learning (BALL): Push button publishing for the pupils [Electronic version]. *TEFL Web Journal Vol 3 No 1 2004*. Retrieved February 25, 2005, from http://www.teflweb-j.org/v3n1/blog_ward.pdf

Warschauer, M. (1996a). Computer-assisted language learning: An introduction. In S. Fotos (Ed.), *Multimedia language teaching*. Tokyo: Logos International.

Wenden, A. L. (1998). Metacognitive knowledge and language learning. *Applied Linguistics, 19*(4)*,* 515-537.

Wenden, A. L. (1991). *Learner strategies for learner autonomy*. Englewood Cliffs, NJ: Prentice Hall.

Widdowson, H. G. (1972). The teaching of English as communication. *English Language Teaching, 27*(1), 15-18.

Widdowson, H. G. (1978). *Teaching language as communication*. Oxford: Oxford University Press.

Wilkins, D. A. (1972). *The linguistics and situational content of the common core in a unit/credit system*. MS. Strasbourg: Council of Europe.

Wilkins, D. A. (1976). *Notional syllabuses.* Oxford: Oxford University Press.

Yildiz, S., Bichelmeyer. B. A. (2003). Exploring electronic forum participation and interaction by EFL speakers in two web-based graduate-level courses. *Distance Education, 24*(2), 175-193.

Young, S. S. C. (2003). Integrating ICT into second language education in a vocational high school. *Journal of Computer Assisted Learning, 19*(4)*,* 447-461.

Youse, C., Kenniburg, C., & McCormack, B. (2005). Student voices: Blogging and beyond. *Knowledge Quest, 33*(4)*,* 21-22.

Zhang, D. (2001). Singaporean secondary three students' metacognitive knowledge about English oral skills learning. Unpublished MA thesis, Nanyang Technological University, Singapore.

Zhang, D., & Goh, C. C. M. (2006). Strategy knowledge and perceived strategy use: Singaporean students' awareness of listening and speaking strategies. *Language Awareness, 15*(3), 199-219.

Zhang, L. J. (2001). *Metacognition, cognition and L2 reading: A study of Chinese university EFL readers' metacognitive knowledge and strategy deployment.* Unpublished Doctoral dissertation, Nanyang Technological University, Singapore.

Zhang, L. J. (2001). Awareness in reading: EFL students' metacognitive knowledge of reading strategies in an acquisition-poor environment. *Language Awareness, 10*(4), 268-288.

（中文参考书目）

陈钟樑（2004）"不可替代"与"不能替代"，《中学语文教学》，第 11 期。

崔永华（2005）二十年来对外汉语教学研究热点回顾，《语言文字应用》，第 1 期。

蒋金镯（2004）口语交际是学生发展的必需，《中学语文教学》，第 7 期。

李开 编著（2002）汉语语言学和对外汉语教学论，北京：中国社会科学出版社。

李明洁（2005）进入教学的口语交际及其特点，《语文建设》，第 8 期。

李明珠（2004）对多媒体教学的冷思考，《语文建设》，第 6 期。

刘珣、田善继、冯惟钢 编（1997）对外汉语教学概论，北京：北京语言文化大学出版社。

吕必松（1995）关于语言教学的若干问题，《语言教学与研究》，第 4 期。

吕必松（2002）序。见李开 编著《汉语语言学和对外汉语教学论》，北京：中国社会科学出版社。

吕必松（2006）汉语和汉语作为第二语言教学，北京：北京大学出版社。

潘红娟（2005）在生活中捕捉口语交际的火花，《小学语文教学》，第 6 期。

潘涌（2004）直面世界：语文口语交际教学新概念，《教育科学研究》，第 8 期。

孙云凤（2005）口语交际应确立可操作的训练目标，《小学语文教学》，第 6 期。

王春艳（2004）口语教学的瓶颈与对策，《小学语文教学》，第 5 期。

王娟（2004）让情境与口语交际相融，《小学语文教学》，第 5 期。

余彤辉（2004）关于信息技术在语文教学中应用的意见，《中学语文教学》，第 11 期。

谢嘉平、赵玉琦、王俊英 编（2002）小学语文教学新路，北京：北京科学技术出版社。

臧公管、王德敏（2004）还口语交际以真面目，《小学语文教学》，第 6 期。

张普（1991）论汉语信息处理技术与对外汉语教学，《语言教学与研究》，第 1 期。

张永林（2004）初中口语交际教学的现状与对策，《语文教学通讯》，第 8 期。

郑艳群（1995）《第四届国际汉语教学讨论会文选》，北京：北京语言学院出版社。

郑艳群（2006）近十年来汉语计算机辅助教学的理论与实践。见张普、谢天蔚等主编《数字化汉语教学的研究与应用》，北京：语文出版社。

周志芳（2005）在具体情境中进行口语交际训练，《小学语文教学》，第 6 期。

Appendix I

Samples of content analysis of student's self-appraisal

Coding scheme

Symbol	Metacognitive Strategy Used	Metacognitive Knowledge Used
AEP	Evaluating	Person knowledge
AET	Evaluating	Task knowledge
AES	Evaluating	Strategy knowledge
AMP	Monitoring	Person knowledge
AMT	Monitoring	Task knowledge
AMS	Monitoring	Strategy knowledge
APP	Planning	Person knowledge
APT	Planning	Task knowledge
APS	Planning	Strategy knowledge

Sample 1: Ning's 《校园恶霸》[*Bully*]

Sentence	Content	Code 1	Code 2
1.	对于校园恶霸…我对自己的录音还蛮满意的。	AET	-
2.	因为很像比上次的录音还好，而且很像比较少停顿的时间。	AMT	-
3.	和 Shing 比较，我的内容很像比他还少。	AMT	-
4.	但是我觉得我的录音不会比他差。 哈哈。	AMT	AMS
5.	在下次的录音里，我会尝试说多一点成语，也不要讲太慢。	APT	APS
6.	我听了同学们的录音后，最大的收获是讲话时不要拖拖拉拉。	AMT	-

Sample 2: Zen's 《青少年沉迷于网上游戏》**[*Gaming*]**

Sentence	Content	Code 1	Code 2
1.	我认为我最后的录音比全部以前的是最好的，只是我用了几个英文字自录音里。	AEP	AMT
2.	组员们说我的声音够大声了。他们也有说我有多多的进步。我觉得很开心。	AMT	-

Sample 3: Meng's 《外貌还是内涵比较重要?》**[*Appearance*]**

Sentence	Content	Code 1	Code 2
1.	可能我平时间讲话太快了，已经成为我的习惯了。	AMP	-
2.	我应该改掉我的坏习惯。	APP	APT

Sample 4: Meng's 《压力》**[*Pressure*]**

Sentence	Content	Code 1	Code 2
1.	我这一次的录音不是说很好因为我没有写稿。	AES	-

Appendix II

Samples of content analysis of comments given to peers

Coding scheme

Symbol	Metacognitive Knowledge Used
CP	Person knowledge
CT	Task knowledge
CS	Strategy knowledge

Sample 1: Hwee's 《压力》[*Pressure*]

Sentence	Content	Code 1
1.	讲得很流利，	CT
2.	对我来说你讲得时候讲得慢了一点，可是这让我比较容易明白你再说什么。	CT

Sample 2: Zen's 《青少年沉迷于网上游戏》[*Gaming*]

Sentence	Content	Code 1
1.	我认为你做得很好，当然是因为你爱玩上网游戏，是吗？	CP
2.	说话很清楚，	CT
3.	够大声。	CT

Sample 3: Yuan's 《校园恶霸》[*Bully*]

Sentence	Content	Code 1
1.	Hey，你这个录音是试了几次的对吗？哈哈。	CS

Appendix III

Samples of content analysis of comments received from peers

Coding scheme

Symbol	Metacognitive Knowledge Used
CP	Person knowledge
CT	Task knowledge
CS	Strategy knowledge

Sample 1: Yuan's 《青少年离家出走》[*Running away*]

Sentence	Content	Code 1
1.	这次的录音没有那么多例子，有进步。	CT
2.	但是，我认为你应该说出你对这个题目的看法：如果你离家，你父母亲的心情如何？	CT

Sample 2: Ning's 《新加坡人有礼貌吗?》[*Courtesy*]

Sentence	Content	Code 1
1.	我觉得你的表达能力很流畅，有很少停顿或重复。	CT
2.	哈哈！声量够大声！	CT

Sample 3: Hwee's 《青少年沉迷于网上游戏》[*Gaming*]

Sentence	Content	Code 1
1.	我认为你做得很好，当然是因为你爱玩上网游戏，是吗？	CP